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A compilation of reports given at the forty-third annual meeting of the National Council on Schoolhouse Construction includes--(1) "To Build--Past, Present and Future Tense", a view of school construction perspectives in terms of present and future educational needs, (2) "Implicatio"s of Present and Projected Federal Programs for School Buildings", a statement on federal responses in building programs to the continual increase in schools population mobility, (3) "Problems in Planning School Buildings", how to adapt school architecture to facilitate technological advances in education, (4) "School Construction Systems Development", a review of problems encountered in building projects, (5) "FUAP--Facilities Utilization Analysis Program", the use of a process for analyzing and utilizing educational facilities, and (6) "Educational Facilities Planning Must Be Improved in America", the need for a new look at improvement of long range planning as a result of technological advances. The Proceedings close with notes from a series of discussion groups on long range planning for urban, suburban, rural schools, colleges and universities, and a national view. (GM)

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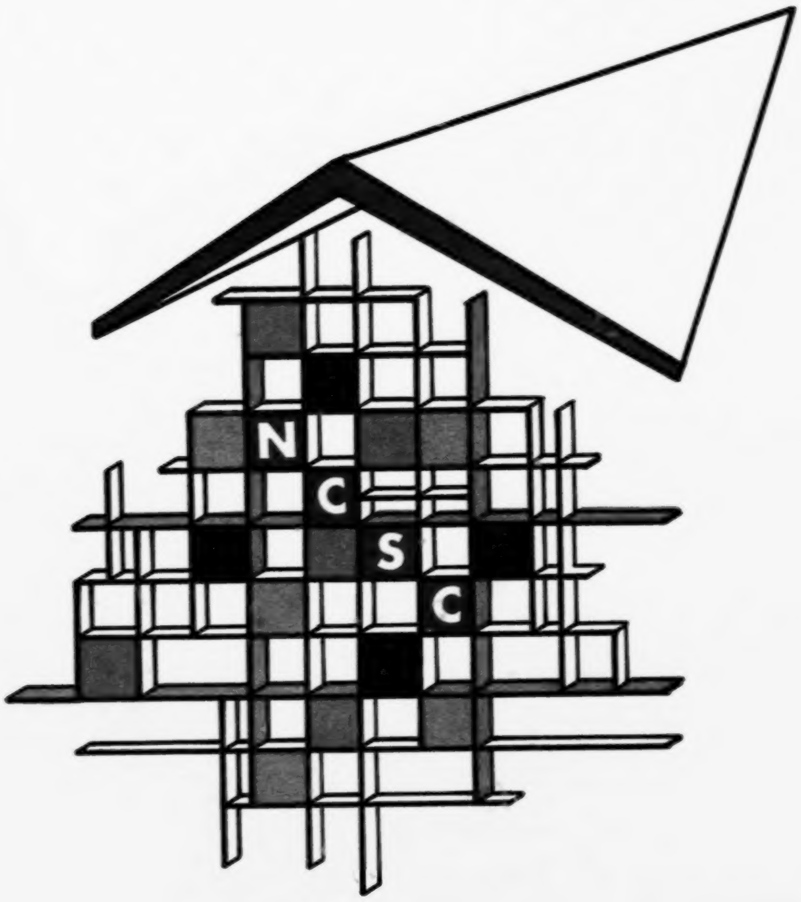

SCHOOLS

PLANNED FOR THE COMMUNITY

NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION

FORTY-THIRD ANNUAL MEETING OCTOBER, 1966

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Schools - Planned For The Community

NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION

FORTY THIRD ANNUAL MEETING
Palo Alto, California
October 3 - 6, 1966
A. L. Beck, President

Published By
National Council on Schoolhouse Construction

Edited By
Kenneth R. Widdall, Executive Secretary

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ANNUAL MEETING, 1966

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SCHOOLS—PLANNED FOR THE COMMUNITY

Consistent with the fundamental concept that schools are to be designed to serve the educational program structured to satisfy the specific needs of their respective communities and in accord with the basic theme of the Forty Third Annual Meeting of the National Council on Schoolhouse Construction, the Proceedings of the 1966 Annual Meeting is appropriately entitled "Schools—Planned For The Community."

The National Council also takes this opportunity to recognize the fine work of the School-of-the-Month Committee under the direction of Aaron Cohodes of *Nation's Schools* which cosponsored the project with the National Council on Schoolhouse Construction.

Selected photographs of Schools-of-the-Month of 1966 are incorporated in this publication through the courtesy of the architects responsible for their design.

To the hundreds who contributed to the success of the Forty Third Annual Meeting, to the thousands who daily dedicate their lives to the planning of better educational facilities and to those who have made possible "Schools—Planned for the Community" this publication is thoughtfully presented.

Kenneth R. Widdall
Editor

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ALPHABETIC LISTING OF COUNCIL MEMBERSHIP

  Individuals 127
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By John L. Cameron, President

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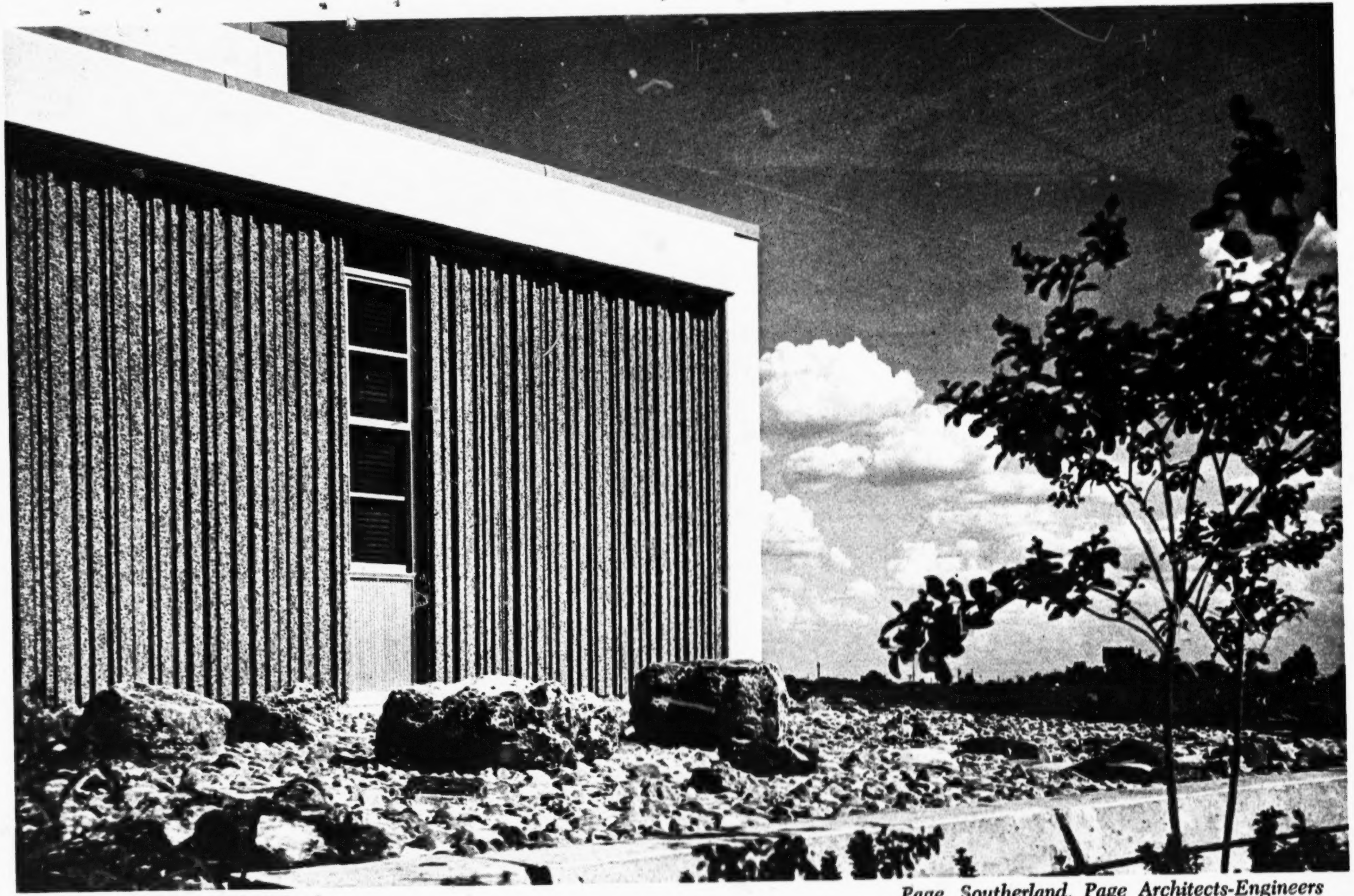

John H. Reagan High School

Page, Southerland, Page Architects-Engineers

FORTY-THIRD ANNUAL MEETING
1966

NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION

RICKEYS HYATT HOUSE HOTEL
Palo Alto, California
October 3-6, 1966

PROGRAM

"SCHOOLS — PLANNED FOR THE COMMUNITY"

SUNDAY, OCTOBER 2ND

8:00 A.M.	Breakfast, Board of Directors, N.C.S.C.—University Room
10:00 to 4:00 P.M.	Meeting of Midwestern States Educational Information Project—13 States' Conference—Marsten Hall
1:30 P.M.	Board of Directors, N.C.S.C.—Annex
8:00 P.M.	Executive Committee, Council of State Directors—Annex

MONDAY, OCTOBER 3RD

9:00 to 12:00 Noon	Board of Directors, N.C.S.C.—Annex
9:00 to 4:00 P.M.	Council of State Directors of Educational Plant Services—Marsten Hall—Edward F. Wilcox, President
1:00 to 5:00 P.M.	REGISTRATION—Executive Conference Hall
1:00 to 5:00 P.M.	Board of Directors, N.C.S.C.—Annex
5:00 P.M.	Meeting of Membership Committee—Marsten Hall Dr. M. Ted Dixon, Chairman
7:00 P.M.	FIRST GENERAL SESSION—Rose Room Opening of the Conference—A. L. Beck, President, N.C.S.C. "Welcome to Palo Alto"—Dr. Harold Santee, Superintendent, Palo Alto Public Schools "Welcome to Stanford University"—Dr. James D. MacConnell, Director, School Planning Laboratory, Stanford University ADDRESS: "To Build—Past, Present and Future Tense" Dr. Chester Babcock, Past President, A.S.C.D., Assistant Superintendent, Washington State Office of Superintendent of Public Instruction

TUESDAY, OCTOBER 4TH

7:00 A.M. Abstractors Breakfast—University Room

9:00 to SECOND GENERAL SESSION—Rose Room
11:30 A.M. Presiding—Dr. John L. Cameron, President-Elect, N.C.S.C.
"Brainstorming the New Guide"—Dr. Carroll McGuffey, Chairman of Publications Committee

12:00 Noon LUNCHEON MEETING—Rose Room
1:30 P.M. Presiding—Dr. Francis C. Darby, Past President, N.C.S.C.
Honoring Life and Honorary Members
"Implications of Present and Projected Federal Programs for School Building"—Dr. William W. Chase, U. S. Office of Education

2:00 to THIRD GENERAL SESSION—Rose Room
4:00 P.M. Presiding—Frank E. Irwin, Board of Directors, N.C.S.C.
"Problems in Planning School Buildings"
Panel Members:
- Dr. John W. Gilliland, Moderator: Director, School Planning Laboratory, University of Tennessee
- Dr. James D. MacConnell, Director, School Planning Laboratory, Stanford University
- Dr. Charles E. Trotter, Specialist, Education Facilities Technology, Office of Education, Washington, D. C.
- George Galloway, A.I.A., Galloway and Guthrie, Architects and Engineers, Knoxville, Tennessee
- John Shaver, A.I.A., Shaver and Company, Architects, Salina, Kansas
- Dr. J. L. Pierce, Director, Division of School Planning, Department of Public Instruction, Raleigh, N. C.

5:00 to RECEPTION FOR NEW MEMBERS AND WIVES—Pool
6:00 P.M.

8:00 P.M. SPECIAL SESSION—Rose Room
"Significant Research in School Planning"—Moderator, Dr. Wallace H. Strevell, Chairman of Research Committee

WEDNESDAY, OCTOBER 5TH

8:30 to FOURTH GENERAL SESSION—Rose Room
10:30 A.M.

Presiding—A. L. Beck, President, N.C.S.C.
Reports of Committees:
- Publications Committee—Dr. Carroll W. McGuffey, Chairman
- Professional Activities Committee—Dr. M. Ted Dixon, Chairman
- Research Committee—Dr. Wallace H. Strevell, Chairman
- Secretary-Treasurer—Dr. Floyd G. Parker
- Auditing Committee—John L'Hote, Chairman
- Executive Secretary Report—Dr. Kenneth R. Widdall

Nominating Committee—Dr. Arnold C. Tjomsland, Chairman

Election of Officers

General Business

11:00 A.M. FIELD TRIPS

Tour I—*Elementary School and Junior High School*

Caroline Davis Elementary School, Oak Grove School District, San Jose

Edenvale Junior High School, Oak Grove School District, San Jose

Tour II—*High School*

Gunn High School, Palo Alto Unified School District, Palo Alto

Lynbrook High School, Fremont Union High School District, Sunnyvale

Tour III—*Community College*

Chabot Community College, Chabot Community College District, Fremont

5:00 P.M. San Francisco Visit

THURSDAY, OCTOBER 6TH

FIFTH GENERAL SESSION—Rose Room

9:00 to 12:00 Noon

Presiding—Dr. Kenneth R. Widdall
Executive Secretary, N.C.S.C.

ADDRESS: "Educational Facilities Planning Must be Improved in America"—Dr. Richard F. Tonigan, Board of Directors, N.C.S.C.

Group Meetings: Improving Long-Range Planning . . .

For "Urban Schools." James Theodores—Holtum Hall

For "Suburban and Rural Schools." Dr. Widdall—Marsten Hall

For "Colleges and Universities." Stanley Sharp—Edwards Hall

On "The National Scene." Dr. Tonigan—Foster Hall

10:30 A.M. Coffee Break

2:15 to 4:45 P.M. SIXTH GENERAL SESSION—Rose Room

Presiding—Robert L. Guild, Board of Directors, N.C.S.C.

"Educational Specifications"—A.I.A.-N.C.S.C. Committee Panel Presentations

Chairman—Dr. Cleve O. Westby, Director of School Building Services, Department of Education, State of New Jersey

Panel Speakers:

Dr. Harold L. Cramer, Consultant, School Plant Planning, State Dept. of Education, Tallahassee, Florida

William Corlett, A.I.A., Chairman, American Institute of Architects, School and College Architecture, San Francisco, California

Warren G. Vogt, Director of Curriculum, Poway Unified School District, Poway, California

Dr. Charles Wells, Jr., School Plant Planning Consultant, Wayne County Intermediate School District, Detroit, Michigan

Group Discussion

SECTION A. Dr. Cramer, Leader—Marsten Hall
Covers that phase where statements of general philosophy and specific requirements are identified and applicable from the national, state and large district viewpoint. Intended for state directors, coordinators, consultants, and large school district superintendents.

SECTION B. Dr. Wells, Leader—Foster Hall
Concerned with the preparation of educational specifications at the local level for a specific school building project. Intended for local directors, consultants and superintendents.

SECTION C. Warren Vogt, Leader—Edwards Hall
William Corlett, Co-leader
Deals with translating the educational specifications into a building design. Intended for architects or engineers.

7:00 to 9:00 P.M. ANNUAL BANQUET—Rose Room

Presiding—A. L. Beck, President, N.C.S.C.

Music

Report—Resolutions Committee—Dr. Harold Boles, Chairman

Introduction of New Officers

"School of the Year"—Aaron Cohodes, Editor, *The Nation's Schools*

ACTIVITIES FOR THE LADIES

Monday, October 3rd

1:00 to	Registration for luncheon and trips
5:00 P.M.	
7:00 P.M.	General Session—Rose Room

Tuesday, October 4th

9:30 A.M.	Coffee Hour—Garden Room
11:00 A.M.	Tours
	Stanford University Campus
	Stanford Chapel
	Hoover Tower
	Student Union
1:00 P.M.	Luncheon
2:15 P.M.	Lecture and tour of Stanford Linear Accelerator
5:00 to	RECEPTION
6:00 P.M.	

Wednesday, October 5th

"A Day and Evening in San Francisco"

12:00 Noon	Bus to San Francisco
1:00 P.M.	Arrive at the Wharf
	Luncheon
2:30 to	Small Group Visits
5:00 P.M.	Cable car to Union Square
	Harbor Tours—Golden Gate Bridge, Alcatraz, Oakland, Bay Bridge, San Francisco Skyline
	Import shops
	Cable car to Chinatown
	Ghirardelli Square
6:00 P.M.	Return to the Wharf

Thursday, October 6th

11:15 A.M.	Depart Rickeys
12:00 Noon	Luncheon at Allied Arts
	Traditional Shop
	Contemporary Shop
	Many other interesting shops
2:45 P.M.	Depart Allied Arts
3:00 P.M.	Tour of Sunset Magazine, gardens, test kitchens, etc.
4:00 P.M.	Return Rickeys
7:00 P.M.	ANNUAL N.C.S.C. BANQUET

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FIRST GENERAL SESSION

A. L. Beck, President—Presiding

TO BUILD: PAST, PRESENT, AND FUTURE TENSE

DR. CHESTER D. BABCOCK
Assistant State Superintendent of Public Instruction
Olympia, Washington

I have chosen for my topic today the very simple but direct title, "To Build: Past, Present, and Future Tense." We have built; we are building; we will build. The schools we build in each generation are a reflection of the educational philosophy of that day. They represented in the past and they represent today the application of instructional theory and the research evidence which supports it. But the problem is that when we build a school, with its 50-year life span, we must not only meet today's needs, we must also build on the basis of educational specifications which reflect our unproven hypotheses concerning needs, ten, twenty, thirty, or forty years from now.

One of the reasons I have become so interested in such groups as School Construction System Development is that it seems to me they have faced this problem of future needs realistically. If I can be pardoned for oversimplification, and if I am interpreting their point of view correctly, the systems development people are saying in effect, "We don't know what the hell the future holds, so let's plan structures with an inherent flexibility which can be changed and modified and adapted to any emerging need." Perhaps in the long run this is the only reliable solution. But let's not overlook the fact there is danger of becoming so "inflexibly flexible" that we disregard *today's* needs.

Let me say immediately that in discussing school building planning we are, of course, concerned with certain elements of design and construction which schools have in common with industrial and business developments. The importance of such factors as adequate lighting and heating, controlled ventilation, sanitary facilities, and above all, safety provisions and equipment are generally recognized. These factors fall within the purview of the various engineering branches, and it would be presumptuous of me to make recommendations—except to stress that each of these factors plays an important part in creating the kinds of learning

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Keynote address presented at the Forty-Third Annual Meeting of the National Council on Schoolhouse Construction, Rickey's Hyatt House, Palo Alto, California, October 3, 1966.

environment essential to today's school, or to use a more descriptive term, today's *learning center.* These aspects of the building program I will not attempt to discuss.

But let's look backward for a moment—to where we have been. This is a school. (Film shown) It was built some 50 years ago to replace an older building which in turn had stood for nearly 50 years.

In the early 1920's it had an average daily attendance of about 45. It housed eight grades—four in one room, and four in the other. Pupils were carefully grouped—the big ones to fit the big seats in the rear, the smaller ones in the smaller seats toward the front. And this is about as sound a basis as many of those commonly in use today! The people in the community called it the "schoolhouse"—never a "facility"!

Let me describe the floor plan: Two classrooms, a cloak room, and a library on the upper level. Three walls in each classroom were equipped with chalkboards, known in that unenlightened day as "blackboards." Each room contained 30 desks, screwed down to the floor in neat rows, and just far enough apart to accommodate the janitor/teaching-principal's broom.

On the lower level was a furnace room and a coal bin, ranged alongside the "auditorium" which had a stage and dressing room at one end. It was also equipped with four work benches because all the boys, grades 1 through 8, had "manual training" every Friday afternoon, while all the girls had "sewing."

Twenty paces from the back door, it seemed farther when the snow was deep, were two smaller buildings, one marked "Boys" and the other "Girls." Only two boys or two girls could "leave the room" at any one time because of certain limitations of the facilities, which at that point in time were unselfconsciously called "privies."

This is typical of the schools we built. I am sure that I can find almost exact replicas in nearly every one of your states. And so can you. In fact, several of you whispered names for the school—and all of you were wrong! It is the old Valley Chapel School some five miles south of the Whitman Mission and now a part of the Walla Walla School District in our State of Washington. The cost, incidentally, was $1.19 per square foot!

This old building, of course, is now closed—absorbed by consolidation. A modern diesel bus carried the children to and from an urban school. And on the old playground and out in "center field" a small herd of Angus graze and chew their cuds, blissfully unaware of the changes evidenced by their presence.

Times change! During these past 50 years, the exterior appearance of our school buildings has changed greatly. The deep well and hand pump have been replaced by sanitary drinking fountains. We have moved the "outhouses" indoors. The stable—so characteristic of rural schools a half-century ago—has been replaced by a black-topped parking lot.

But realistically (with, of course, outstanding exceptions), I wonder if the instructional areas—the classrooms—the *heart of the facility,* have not remained virtually unchanged. And in many instances, in my opinion, the changes we have made have detracted from, rather than added to, the utility of the classroom as a study center. We have lessened chalkboard space, reduced bulletin board and display areas, and limited storage facilities in order to keep in step with the current trend toward glass walls. We do this, we usually say, in order to have adequate light—even when artificial light can be more effectively controlled to meet pupil needs. And we further complicate the problem of making the classroom a good instructional center by spreading the rooms out around courtyards and play areas with all of the resulting distractions.

Let me make a few general comments—assumptions, if you prefer—pertaining to the school facility as it relates to the total community of which it is an integral part:

In my opinion, the over-all appearance of the school must set a high aesthetic standard for the community as a whole and should be *consistent with the architectural designs characteristic of the community and the region.* Across Canal Street, in the old French Quarter in New Orleans, some of the older buildings—nearly two centuries old—are being replaced. Time is taking its toll. New buildings to meet new needs are being constructed—modern motels for example. Yet the characteristic flavor of the community is being maintained. As I understand it, plans must be submitted to an architectural committee to make certain that the exteriors are completely harmonious with their surroundings. And well-planned residential development, or even a shopping center, follows the same general practice. Residential areas in New England look very different from those in Southern California or in the Pacific Northwest. And a development in Florida is quite unlike one in Michigan or Wisconsin. Our diversity is an essential component of the richness of our cultural heritage. But all too often, community schools could be traded and one would hardly notice the difference. We seem to specialize in "look-alikes."

I personally cannot become too concerned about the shape of a classroom or cluster of classrooms. A few weeks ago there came to my desk a little magazine, *Educational Equipment and Materials* (Spring issue, 1966). Quite by accident I opened it at page 34, and there I read, "Both 'Blank' and 'blank' high schools depart from most schools built in recent years by boasting extra-wide hallways with hexagonal, circular, and odd-shaped cluster classrooms instead of square or rectangular rooms." And then in the next paragraph this was explained: "Classrooms are grouped in odd-shaped clusters according to the subjects taught in them. Industrial and technical classrooms form an *arc;* business education and mathematics rooms are grouped in a *triangle;* social science and language arts classrooms form a *rectangle* (signifying these classes are for 'squares,' I suppose); and the science labs fill a *diamond*-shaped space," (symbolizing, I presume, the preciousness currently attributed to these subjects). But at any rate, I'd like to see someone justify *that* arrangement on the basis of educational specifications!

It would seem to me that as we contemplate building for the future—as we develop educational specifications *we must face realistically those* *trends and needs which are already apparent*—where no crystal ball is needed. And I stress this because in the building plans which come into our office week after week, many of these obvious trends are being disregarded. Let me present for your consideration a half dozen or so of these current needs and trends—all of which have distinct significance in building planning:

1. ***School plants will be used on a year-around basis.*** No longer will school be in session only "after the crops are in" and until time for "spring planting." With roughly two-thirds of our total population living in urban areas and with limited opportunities for youth employment, there is no basis in logic for the traditional 180-day school year any more than there is for the traditional 180-day teacher's contract. Already we can see this need being recognized. Many Title I proposals (P.L. 80-10) provided summer educational programs for the culturally and economically deprived. Several of the programs under the Economic Opportunity Act, in effect, extend the school year. Programs for adult illiterates and for children of migratory workers disregard the traditional 180 days of the educational establishment.

2. ***Schools will be open and in use around the clock, six days per week.*** The explosion of knowledge; our ever-accelerating rate of technological change; the necessity for continuing education to meet the demands of industry, business, commerce and agriculture all indicate our schools of the future will have to operate at least two full shifts. We are already entering a period when windows will shine with light far into the night instead of looking like a deserted factory at 4:00 p.m. The reason for this extension of the school day is obvious—it points directly to the fact that:

3. ***The school will serve a broader age span—from nursery school through the adult years.*** This is indicated by the success of such programs as "Operation Head-Start" at one end of the continum and the "Manpower Training and Development Act" at the other. An industrial arts classroom during the day is very apt to be a trade extension classroom in electronics or instrumentation that night—and probably should be. The library and instructional media center will be serving the needs of those involved in continuing education. The science laboratory facilities may well be the center for the inservice education program of local industries. Art and music areas will be in full operation meeting the needs of youth, young adults and, increasingly, the leisure needs of our ever-growing group of senior citizens.

4. ***There will be an increasing intermingling of boys and girls in secondary programs traditionally regarded as noncoeducational.*** Let me suggest an example where this is already easily discernable. It is estimated that within ten years we will be approaching the point where women will make up half the labor force. Many of these will be production workers; many will be entering professions, such as engineering, formerly generally regarded as man's domain. Already we find girls enrolled in the industrial arts department in such classes as mechanical and architectural drawing.

Industry is demanding an extension of such programs. If the aim of industrial arts is, as we say, to provide an exploratory experience and to acquaint students with the materials, tools, techniques, and processes of our modern technological society, how can we logically keep girls out of our industrial arts programs? Yet only last week I looked at a set of plans which provided no lavatory facilities for girls in a large and elaborate industrial arts wing.

5. ***Increasingly there will be a need for a large central facility within each school building.*** It is my belief that every school—and certainly all secondary schools—should have an auditorium large enough to seat at least half the student body of a large school and the entire student body of a small one. I recognize that currently the auditorium is being replaced by the multipurpose room—a combination lunchroom, cafeteria, play court in bad weather, gymnasium, audiovisual center, meeting room for PTA and advisory committees, band and orchestra room, practice area for the after-school square dance group, etc. etc.—even an emergency kindergarten classroom. Perhaps the fact that it is used in so many different ways indicates there is need for such a facility, but my general observation would be that in the attempt to make the "multipurpose" room meet such a variety of needs, we end up with a facility which does not really meet the needs of any—and most certainly it does not meet the need for an auditorium.

We all recognize that the move away from the building of auditoria was primarily an economic measure. We said that with the overcrowding of our schools we needed, first of all, classrooms in which to teach. There is an assumption here which I cannot accept—that an auditorium is any-the-less a teaching-learning center than the gymnasium, the library or the traditional classroom. It is a frill—a luxury—only within the most conservative and traditional concepts of the tasks of education and the function of the school. If it is truly our aim to help every child—every youth—become a fully functioning personality, we cannot limit learning experiences to the narrow confines of a simple "teaching station."

It seems that today, and increasingly in the future as the scope and span of public education are broadened, the auditorium is an imperative. Let me elaborate for a moment on its utility:

First and foremost it provides *a meeting place for the entire student body or any major portion thereof.* (You may call such meetings "assemblies" or if you are up to date in your jargon, "large group instructional periods.") Here are a few sound *instructional* reasons:

a. To hear speakers from within and outside the community as a supplement to the total educational program—*to broaden and enrich the learning experience which the faculty and staff cannot contribute.*

b. *To stimulate and cultivate aesthetic interests, tastes, and values.* Young people of all ages need opportunities to hear *good music*—symphony groups, operas and operettas, folk singers, vocal groups, if tastes and appreciations are to be cultivated. They need to see *good theater* if they are to understand drama as a portrayal of the culture. The necessity for advances in these and related areas is reflected in both Titles I and III of the Elementary and Secondary Education Act. In my opinion, this concern at the national level about cultural deprivation will have an increasing impact upon education at the local level. In our own State, Title III proposals, already approved, will bring both music and drama groups to all areas. There must be adequate auditorium facilities if such programs are to fulfill their purposes.

c. *To provide group guidance.* There are many facets to a good guidance program. Many of the functions can be performed in a large group situation. Sessions dealing with "good citizenship," "ethics and moral standards," "career planning," to name but a few, can be effectively carried on in the auditorium.

d. *To provide inspirational programs*—and although I am sure some of you disagree with me, I suggest this without apology. I think that a well-planned and presented program in observance of Constitution Day or Law Day, or in commemoration of Lincoln's or Washington's Birthday, can provide a valuable learning experience that is not possible in the classroom or the cafeteria-multipurpose room.

e. *To provide a center—comfortable and appropriate—for community educational activities*—PTA, League of Women Voters, Senior Citizens, Little Theatre, Community Action groups, and a host of others which contribute to the total educational *enterprise,* each making its contribution just as does the formal educational institution.

Incidentally, did you ever try to sit through a PTA meeting, for example, on one of those benches attached to the folding lunchroom tables? It's murder! I'm surprised we ever garner any community support!

6. ***There must be adequate space and equipment for a comprehensive physical education program for all***—a developmental program from nursery school through the formative years and a fitness program for adults. And I am *not* referring to the interscholastic athletic program which is, after all, only a specialized program for "talented and gifted" students. I think the interscholastic athletic program makes a contribution as do debate, dramatics, glee clubs or choral groups, and I hope you give the athletic program at least equal status with these other worthwhile activities. Coupled with the physical education program we will, I believe, see increased emphasis on the development of skills associated with adult recreational activities—golf, bowling, tennis, and swimming, for example. I think this type of program becomes a necessity as we help prepare youngsters for life in a technological society with ever-increasing leisure especially for service and production workers. This trend is already apparent in the advances being made by such groups as Lifetime Sports, Inc., and the President's Commission on Physical Fitness. If we accept this proposition, then the physical education facility of tomorrow must be far more than a regulation interscholastic basketball court.

7. ***The learning resources center*** will increasingly and rapidly become the focal point around which the school's activities will be carried on. Research clearly indicates that we can no longer ignore the fact that children, youth—all of us—learn in different ways and that we learn different things in different ways at different times. If we are concerned about individual differences, then we must recognize the necessity for multisensory approaches to learning.

This means that the learning resources center, materials center, media center (what you name it is not important) must be easily accessible, planned and organized for efficient use. It must be designed to promote optimum use of the broad spectrum of materials—print and nonprint. It must provide facilities from books, newspapers, and periodicals, of course, but in addition facilities are needed for the storage, care and maintenance of films, filmstrips, slides, flat pictures, collections of realia, maps and globes, models and the tools and facilities to use them well. These should include viewing and listening centers for small groups and for individuals, conference rooms, student workrooms with typewriters, copying and duplicating machines, and comfortable, home-like reading centers.

8. ***The building of the future must make provision for teachers facilities*** as carefully and thoughtfully planned as those for students. There is, in my opinion, a completely sound rationale in support of this contention:

In the first place, the role of the teacher is rapidly changing. The old idea of one teacher to thirty students housed in a box is no longer realistic. Today's teacher—and increasingly tomorrow's teacher—is a member of a "team." (I dislike that term as much as you, but I can't think of a better one. The dictionary says a "team" when used with reference to people, is "a group working or playing together as one side in a contest." I'm never quite certain whether the other side is the principal or the students!) But, at any rate, the teacher is one of a group of professional and paraprofessional or auxiliary workers, cooperating in their efforts to better meet the educational needs of their students. And, if they are to work in this cooperative relationship successfully, they must also have the *time* and the *facilities* to plan and prepare together.

This means provision for filing and storing resource materials, adequate planning centers, a workshop for the preparation of instructional media, and suitable conference rooms. It also indicates the need for a comfortable faculty lounge, because I am convinced that we have reached the point where the entire teaching and administrative staff should expect to put in an *eight-hour day* in the building—the same as professional workers in all other fields. The newer concepts relating to the role of the teacher necessarily involve him in group activities. No longer can he leave school at 3:30 or 4:00 expecting to do his planning and preparation at home. He is no longer a solo performer.

9. ***We need classrooms that look like and serve as learning centers, as study centers.*** The majority of modern classrooms now being built represent the 1966 stereotype with the same degree of conformity as the classrooms in Valley Chapel a half-century ago. Why must classrooms look

so antiseptic and kitchen-like? How many of you—administrators or architects—would design a study for yourself that bears any resemblance to the typical modern classroom? And much of the so-called "flexible" furniture is about as inflexible in terms of the individual student and his comfort and convenience as man could possible contrive. Be realistic! Aside from the fact that it is not screwed down to the floor, that black cast-iron has been replaced with aluminum, and the old varnished oak top with Formica, we are just about where we were 50 years ago. We are still designing in a majority of cases in terms of *group* accommodation within the confines of what someone has termed our "ice-cube-tray school design."

Furthermore, in the design of classrooms we are all too generally disregarding reliable research this is available. Let me be specific and use the kindergarten as an example. Will you accept this assumption as a starting point? The physical, psychological, social and intellectual needs of the five-year-old ought to dictate the space, the arrangement, the equipment, and the facilities to be provided in the kindergarten. This assumption is supported by research data indicating that the physical facilities, to a surprising extent, control the adjustment of children to the school, to their associates, to the activities, and of great importance to the achievement of the intellectual tasks. But what is happening in schools being planned at this very moment?

We cling to the traditional notion that kindergarten rooms should provide large *open* spaces. The research indicates that 5-year-olds cannot handle large open spaces very well. Much of the undesirable behavior that occurs grows out of children's attempts to *use* all the space. It indicates further that a kindergarten room should be broken up to provide areas for small group activities and to provide space for the individual to be *alone*. The research also indicates 20 to 25 is the *maximum* number of 5-year-olds in a single class.

Incidentally, in building planning we should recognize that within the decade the majority of kindergarten sessions will probably be five or five-and-a-half hours in length rather than the two- to three-hour token sessions we now schedule.

10. And finally, in my opinion, ***we are rapidly approaching the day when our old concept of the community school—the neighborhood school—will become obsolete.*** This is important to you as building planners. It presents to you a completely new complex of problems. The rationale upon which I base my prediction that the community or neighborhood school no longer meets our needs is relatively simple:

We are being confronted in every major metropolitan area in our nation with the stark realities of a deteriorating central area, with the flight to the suburbs of those families economically able to flee. The result is, and has been for more than two decades, a rapid increase in *de facto* segregation in our neighborhood schools with all the cultural and environmental limitations which characterize segregation whether it be *de facto* or *de jure*. To me, such segregation results in the cultural deprivation of both the minority *and* the majority groups. No child can learn to live in a multiethnic-multicultural world in a segregated learning environment.

Bruner has said, and I am paraphrasing, that each generation must reinterpret the purposes of education and the role of the school. Today we are all faced with an insistent present. Look around you. Read the papers. We must find solutions!

I believe that in this situation in which we find ourselves it is inevitable that we will see within the next five to ten years in all of our metropolitan areas, the construction of large education centers bringing together on a grade-4-to-grade-7 and a grade-8-to-12 basis, five or six or seven thousand students. The size will be determined by the area which must be included to bring about the ethnic and cultural integration of many small neighborhood communities. I see no other solution.

The development of such a large educational center, sometimes referred to as an *educational park,* or *educational plaza,* presents a real challenge to school building planners. It will doubtless be an ungraded school with some type of continuous growth program. It will have to be a *comprehensive* school in every sense of the word with a program which includes prevocational and vocational opportunities along with the academic offerings which have traditionally characterized our schools especially at the secondary level. Because of the large number of students involved in such a center, *ways must be found to create schools within the schools, providing the small group associations so improtant to children and youth.* To me, this area of concern represents the great challenge of the next decade—whether our responsibility is building planning, curriculum development, or the improvement of the instructional program.

I have not once thus far mentioned such current trends and practices as modular scheduling, team teaching, program instruction, flexible scheduling, time blocks, individualized instruction, educational or instructional television, seminars, computerized instruction, etc. These are a part of the popular jargon. I am certain that many of these innovations hold great promise. We need more and sounder research on nearly all of them.

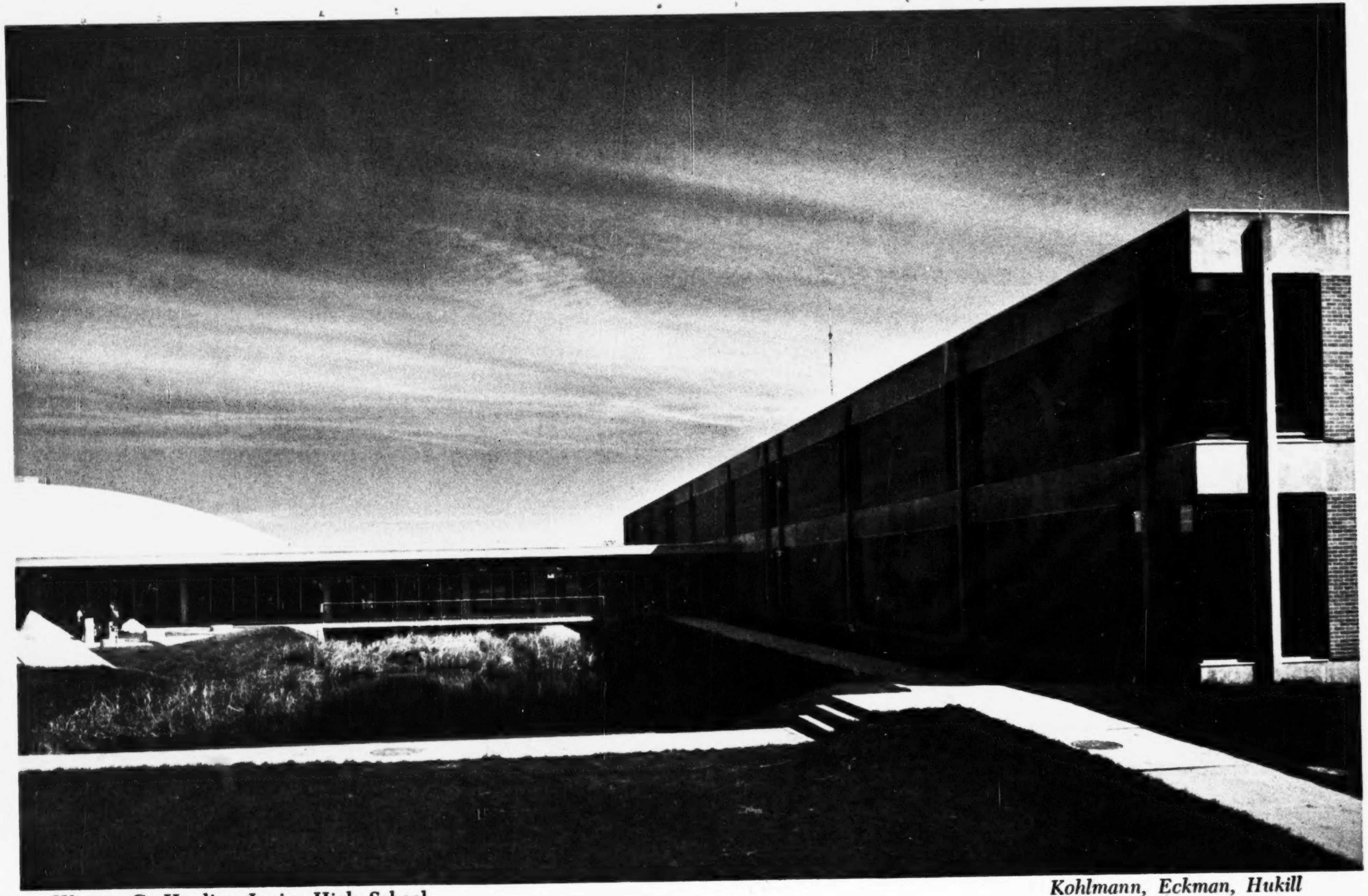
But at the present, it seems to me to be unwise to plan a building which commits us *irrevocably* to any program which is still in the experimental stage of its development. This does not mean that we do not need *experimental programs* and *experimental facilities* in which to house them. It does mean, in my opinion, that in building planning generally we should, *first,* do our best to interpret discernable trends with reference to probable *functions* of the educational programs now and in the years ahead. And, *second,* plan facilities which can meet those needs and at the same time be sufficiently flexible as to be adaptable to emerging instructional practices and procedures. We must not build-in obsolescence; neither must we be stampeded into a building program which a decade from now may prove to be a limiting factor in the orderly development of the educational function.

Time-Life is currently publishing a series of volumes dealing with the Great Ages of Man—I think that is the title. Many of you probably know the books. They deal with some of the distinct and inspiring periods in man's long history—periods during which definitive steps were taken toward the achievement of the ultimate goals of humanity everywhere.

I have the strong feeling that some historian of the future—some historian far enough in the future to put partisan implications in perspective—will characterize the period in which we now live and work as the "Era of Education" in the great ages of man. The opportunity is ours. We have popular support for free public education for all to a degree unparalleled in history. We have political support from within both our great political parties. We have a financial commitment on the part of the Federal government which attempts to do for the states what we in the states have tried to do for local districts—to equalize educational opportunities.

A school building is a reflection of the educational philosophy of a community. It represents an abstraction translated in terms of steel and stone. It portrays in mortar and brick the vision, the depth of understanding, the creativity, the perimeters of the minds of those who planned it. It mirrors your concept of the task of education.

We have *built;* we are *building;* we will *build.* The question is "*What?*".



Warren G. Harding Junior High School

Kohlmann, Eckman, Hukill

SECOND GENERAL SESSION

Dr. John L. Cameron, President-Elect—Presiding

BRAINSTORMING THE NEW GUIDE

DR. CARROLL W. MCGUFFEY,
Chairman, Publications Committee

Gentlemen, I want to make this short and sweet as we say in my part of the country. We have a job to do, a big job, and we need to spend all our time doing it. It has been a practice of long standing for Council members to have an opportunity to participate in up-dating and revising the National Council's *Guide for Planning School Plants.* Our purpose here this morning is to brainstorm the revision of the *Guide.* We have divided the group into thirteen sections; we have appointed chairmen and we have asked certain people to serve as recorders of those sections. I would like at this time to call the names of the chairmen and the recorders and also designate the places where these various group sections are to meet. We had posted in the registration area yesterday the names of the groups and we also have them posted today in the lobby and we hope that you have either seen your name on one of those lists or have added your name to one of those lists. In the event that you have not, as I call the names of these sections, please make a choice and go to one of those sections. Take your *Guide* with you; perhaps you will need it. The thirteen sections correspond to the twelve chapters in the *Guide,* plus one dealing with the general content and format. The sections and chairmen are:

Educational Plant Planning Resources—South Patio
  Chairman: Elven Duvall
  Recorder: Gene Coffee
Educational Building Sites—Mgr's. Conference Room
  Chairman: Tom Little
  Recorder: Lloyd Fales
Instructional Spaces—Foster Hall-West
  Chairman: Francis Darby
  Recorder: Nile McCrary
Educational Plant Programs—Foster Hall-East
  Chairman: Art Wohlers
  Recorder: Gurdon Smith
Special, Asthetic, and Safety—Edwards Hall-East
  Chairman: Harold Silverthorn
  Recorder: June Wicker

Visual Environment—Exec. Conference Room—East
Chairman: Charlie Gibson
Recorder: Miles Sheffer

Sonic Environment—Marsden Hall-East
Chairman: Bill Fuller
Recorder: George Collins

Economics in Planning Construction—North Patio
Chairman: Charles Chick
Recorder: Art Matthews

Over-all Content and General Format of the Guide—Univ. Room
Chairman: Floyd Parker
Recorder: Charles Wells

Introduction to Planning Educational Facilities—Edwards Hall-West
Chairman: Cleve Westby
Recorder: Warren Vogt

Thermal Environment—Mint Julip Room
Chairman: Basil Hicks
Recorder: Bob Pulver

Non-Instructional Facilities—Marsden Hall-West
Chairman: Wayne Betts
Recorder: Alfred Speck

Services Auxiliary to Instruction—Executive Hall-West
Chairman: Paul Seagers
Recorder: Theodore Hartman

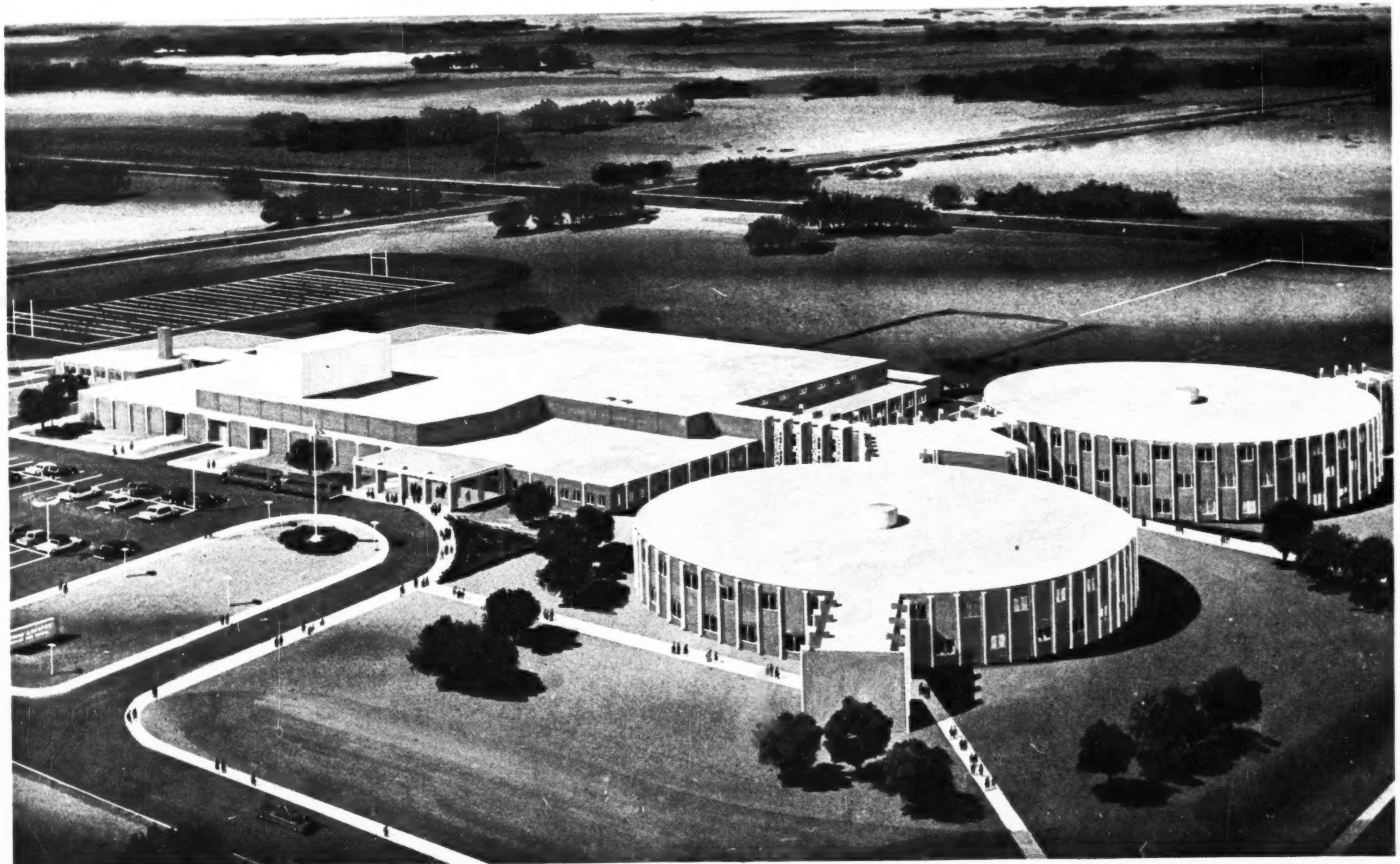
Gentlemen, these are the men who will lead your discussion and your recorders. We are asking the recorders to give us their report by 12:00 noon. We're not anxious to have a long, involved report; we just want to know what the people say, the constructive criticisms that are given in the meetings. We handed each of the chairmen and each of the recorders some instructions and we hope that the sessions will be good sessions for the committee that will rewrite the *Guide.* We are sending with the recorders questionnaires dealing with re-write committees and interests of the Council in writing texts. We hope you don't spend much time on this; pass them out, collect them at the end of the session and return them to us. I would like the recorders, after they have reviewed the materials with the chairmen, to give us a written summary of their comments in room 2. Gentlemen, are there questions? Do you know where you're to go? I want to thank the gentlemen who agreed to serve as chairmen and the recorders and to those of you who responded to our questionnaire, I want to thank you for your very fine response; it enabled us to get organized.

(Editors note)

The thirteen "*Guide* Brainstorming Sections" produced more than 300 comments and suggestions. The results of these sessions have been reviewed by the Publications Committee and forwarded to Dr. Kent Stewart and other members of the *Guide* Rewrite Committee.

Without going into detail several points related to the new *Guide* appear worthy of mention:

1. For whom is the *Guide* written?
2. Some sections are too general; others are too detailed.
3. Color, photographs and graphics need to stimulate interest and improve overall appearance.
4. Consideration needs to be given to the use of the *Guide*. Should it be bound, loose leaf, bound supplemented by loose leaf, a basic document supplemented by other specific documents, all inclusive by adding numerous chapters?
5. Bibliography and documentation of material needed.
6. Advantage to use NCSC and other resource talent.
7. Organization of chapters requires evaluation.
8. Continuous evaluation and up-dating is necessary.
9. Contributions of many highly specialized experts are essential to a comprehensive planning publication.
10. Fundamental guideline concept must prevail throughout the *Guide*.



E. J. Cooper Senior High School

Bissell, Belair and Green

LUNCHEON MEETING

Dr. Francis C. Darby, Past President—Presiding

IMPLICATIONS OF PRESENT AND PROJECTED FEDERAL PROGRAMS FOR SCHOOL BUILDINGS

DR. WILLIAM W. CHASE
United States Office of Education

Mr. Chairman, Platform Guests and Members of the Council:

I was particularly pleased several months ago, when asked to speak on the topic "Implications of Present and Projected Federal Programs for School Buildings." I have always enjoyed my association with the Council and regard it a real privilege to be given the opportunity to participate so directly in the Council's program.

In preparing for this talk, there seemed to be so many aspects to be covered I felt a little like the proverbial mosquito in a crowded nudist colony that knew what he had to do but didn't know just where to start. Not only are there a number of implications of Federal programs for funding school building, but there is also the vast impact of Federal programs on the school building problem.

The procedure I will follow, therefore, is to review the need for assistance for construction of school facilities, refer to several Federal programs which affect school facilities, and describe the implications and impact of these Federal programs on school building.

As a Council, we have long recognized that one of the basic elements for the successful operation of an educational program has been the building which housed the program and equipment provided for it. As Dr. Babcock so well described it, the facilities aspects are even more important. Pressures and changes are continually thrust upon us which influence our thinking and consequent action. The sheer force of the population explosion alone has had serious impact on educational programming and school building planning. Other factors are: (1) population mobility, (2) the types and sizes of various communities and school districts being served, (3) rapid technological advances, (4) sociological ramifications, (5) the restrictive financial picture and inequitable distribution of wealth, and (6) the lengthening span of education in terms of the school day, the school year, and the ages of the persons served.

Looking to the future in school building planning is quite risky, particularly since so many intangibles are involved. But it must be done, and it is certainly challenging in view of current predictions. These are a few:

1. By 1980, more than half of the population of the United States will live in cities that are currently nonexistant.
2. By the year 2,000, our present population will have nearly doubled.
3. Life expectancy will be 80 years.
4. Enrollments in public elementary and secondary schools are expected to be 47.1 million in 1974. In 1964 enrollments stood at 41.4 million.
5. At the moment, more than 54 million are enrolled in some form of formal education. Add to this a portion of the 22 million pre-school age children who may soon be involved in some formal program and some 19 million people over 65 who may take refresher courses.
6. Public elementary and secondary school operating costs will increase to $41 to 45 billion by 1970.

The implications of these predictions, with allowances for slight margins of error, are staggering. Current planning for school facilities as well as that of the next few years will affect quite directly the success of our future educational obligations. In addition to facilities design problems with which we must cope, there is the matter of financing capital programs. With higher construction costs and interest rates, it is unlikely that needs for educational facilities can be met unless new sources of funds can be found. Typically, local borrowing is the primary means of financing public school construction. Restrictive constitutional and statutory debt limitations in a large number of states, together with the competition among state and local governmental agencies for tax monies, often delay or prohibit school construction. State assistance for capital outlay has been quite significant in a few states, but others have done little or nothing in this regard.

Only the Federal Government, unhampered by state boundaries and local jurisdictions, can exercise a superior taxing power to provide funds for states and local school districts lacking the necessary resources to build the schools they need. While the Federal Government to date has made few policy commitments in the area of public school construction, its legislation, nevertheless, has significantly affected facilities requirements by funding programs which have stimulated increased classroom needs and, in a few instances, by providing funds to help meet some of these facilities needs. The long legislative history of school construction bills before the Congress is ample evidence of the Federal concern for this problem.

Currently, there are several bills before the Congress which would provide financial assistance for classroom construction. Hearings have been held on the Perkins Elementary and Secondary School Construction Act (H.R. 9948), which would make available Federal funds for the construction of school facilities in areas with high concentrations of low income families. The bill also would extend and expand the Supplementary

Educational Center Program under the Elementary and Secondary Education Act of 1965. The Senate companion bill, S. 2532, was introduced by Senator Morse with 15 co-sponsors. Under the Kennedy racial imbalance bill (S. 2928), payments would be authorized for the alteration of existing school facilities and for additional costs associated with experimental or demonstration projects including construction of new school facilities if the projects promote desegregation or overcome racial imbalance. A similar bill, introduced by Mr. Powell, (H. R. 13079) would go further and provide for the "full" costs of constructing schools to affect socio-economic diversification and racial balance.

In terms of public laws now on the books, Dr. Dwayne Gardner found that there are at least six separate Federal agencies administering some 43 public laws providing Federal programs of financial assistance and services to state and local governmental agencies in the areas of (1) educational planning, (2) acquisition of sites, and (3) construction of educational facilities. The largest number of these programs are distributed through the U. S. Office of Education. During fiscal year 1966, more than $3 billion in Federal funds were distributed through the U. S. Office of Education to schools, colleges, teachers, students, libraries and librarians for a variety of purposes in the form of grants-in-aid, loans or contracts. Such funds are authorized under 19 laws; the earliest was enacted in 1890, the latest in 1965.

Among the public laws which provide funds for school construction, either by grant, loan or on a matching basis, is the Vocational Education Act of 1963, which, while emphasizing the program aspects of vocational training, made available in fiscal year 1965 nearly $37 million for construction of vocational schools. It continues to function as more schools are planned. Public Law 815 provided $50 million in FY-65 for construction in Federally impacted areas. P.L. 89-313 provided $12 million to local districts to restore or repair educational facilities seriously damaged by major disaster. More than $628 million was administered in FY-66 for higher education facilities.

A few other programs provided for minor remodeling to accommodate programs funded under Federal programs. P.L. 890-10 has responded to the need to improve elementary and secondary education in various ways; however, it was specifically intended for school construction.

Title I permitted some construction and rennovation, where necessary, to implement expanded educational programs financed under Title I.

Title III is designed to encourage school districts to develop imaginative solutions to educational problems, to more effectively utilize research findings, and to create, design, and intelligently use supplementary centers and services.

Title IV provides for the establishment of educational research laboratories for the purpose of concentrating human and financial resources for an extended period on significant problems toward improving understandings and to develop and disseminate data and solutions. Each center is problem oriented, works along the continuum from basic research to action programs, and adjusts its activities as necessary.

Section 503, Title V is designed to provide grants to SEA's to assist in the strengthening of their leadership and consultative services to local school districts. Included are provisions for adding funds and personnel to the agencies for such purposes as school plant planning services to local districts. Section 505 provides funds for groups of states to study various aspects of educational planning, part of which might well be applicable to facilities.

Several programs administered without the Office of Education have significantly affected the need for classrooms and classroom design. Project Headstart, for example, which has been operating in public school buildings during summer months, will bring an estimated 250,000 preschool children into year-round classes this fall. Of course, funds for construction are not authorized under this program and funds for renovation are limited to 10 percent of the amount spent for equipment and rental of facilities.

The Educational Television Facilities Act has provided $23.3 million in grants since 1963 to aid in the construction or improvement of 126 ETV stations. The President's Council on Physical Fitness has stimulated tremendous interest in physical education which, in turn, has generated a demand for additional physical education facilities. Even though approximately 9 million more children were participating in physical fitness programs in 1964 than in 1961, there were no funds available through the program to expand facilities. Manpower Development and Training, and the original Vocational Education Acts are other examples.

HUD's coordinated Community Renewal Programs places emphasis on the role of education in the total redevelopment area and takes into account the problem of educational facilities.

Another program of which you are well aware is the Civil Defense program for fallout protection in schools and other public buildings.

Dealing specifically with the topic, we may ask, "What are the implications of present and projected Federal programs for school buildings?" I will list and briefly describe a few. There is no intent to set priorities because each is extremely important and needs immediate attention:

1. Adequate funding to meet pressing classroom construction needs.
2. Need for more and better school facilities planning through research and development.
3. Greater planning consideration is needed for wider and more efficient utilization of the educational facilities.
4. States and local districts need more comprehensive long-range planning for educational and facilities needs to thoroughly grasp the underlying problems.
5. There is need for the development and support of legislation at both Federal and state levels to implement programs of school construction.
6. Intra-agency and inter-agency cooperation, coordination, and communication are needed at all levels.

I should probably hasten to add that these things ought to be done whether or not there is Federal assistance. However, the potential for accomplishing them sooner is greater with additional Federal assistance.

With reference to classroom needs, a study of public elementary and secondary classrooms was conducted by USOE under the direction of Dr. George Collins. He has estimated that 690,000 public elementary and secondary classrooms will be needed through 1974 to reduce overcrowding, eliminate makeshift and temporary facilities, replace and/or rennovate obsolescent buildings, accommodate special programs, and accommodate increased enrollments. These are conservative estimates and include only public school requirements.

Evidence of what might be done to meet these needs with Federal assistance is found in results of the Vocational Education Act of 1963. The Federal share of $37 million in fiscal year 1965 combined with state and local funds, resulted in an expenditure of $85.7 million for 208 construction projects.

In the matter of research and development, the last two decades have been a period of ferment, flux, and rapid development in American education. Technological advances and innovations in teaching methods have presented both educator and building planner with many exciting possibilities: Their future application may only be partially envisioned at this time. Research and experimentation have resulted in many new concepts in the total educative process. Recognition that children learn and are not "taught" in the usual sense of the word has altered classroom procedures, and hence, has implications for building design.

Among other developments are advances in computer technology, information retrieval, audio-visual methodology and programmed learning. All these promise to produce many changes which will require new approaches and creative decisions by school planners. In too many instances, school design and utilization have lagged behind current developments in American education. Now that school architecture is beginning to move in a direction which will permit new developments to be optionally incorporated into the educative process, we must provide greater leadership in educational planning.

Clearly, if the American school system is to benefit from the advances in educational technology now evolving, new design solutions in school architecture are required. In addition, an important problem area now beginning to receive more attention pertains to the realization that architecture can and does influence human behavior. Much research is needed before this concept can be specifically employed in school design. In studying what may be accomplished in school planning, computers and other technological advances will be invaluable in aiding researchers to determine how architecture may be used to encourage certain desired behavior patterns by building occupants.

Relatively few groups and individuals are engaged in a limited amount of facilities research at the present time. Dissemination of research data is limited and its impact on education minimized. Some strides have been made through the Council's Clearinghouse directed by Dr. Wallace Strevell and funded jointly by the U. S. Office of Education and the University of Houston.

Another factor is that many school building planners are so busy meeting emergencies, they do not have time to conduct required research. In some instances, they lack the "know-how" to conduct meaningful research. On the other hand, many academic researchers are not sufficiently acquainted with the various aspects of building planning, design and utilization to render effective service. One implication is to have a "marriage" between the planners and academically oriented research spcialists.

With numerous Federal programs now providing funds for the establishment of research and development centers and planning laboratories, we should have many excellent opportunities to conduct essential educational facilities experiments. Specifically, Title III of P.L. 89-10 seeks to encourage the development of innovations, and to demonstrate worthwhile innovations in school practices through exemplary programs which supplement existing programs and faciilties. Emphasis will be on projects that offer the greatest promise to advance education and solve persistent problems. Title IV of P.L. 89-10 offers many opportunities for research in the plant field. As indicated, these may be done either in centers and laboratories or contracted through the centers.

With the money needed to provide educational facilities, it is essential that more attention be given to better and greater utilization of such facilities, not only for educational purposes, but for community purposes as well. We have already begun to utilize facilities around-the-clock and around-the-year. We need now to concentrate on an "around-the-community" concept.

Present and pending legislation on school construction can be devised and implemented much more effectively if total educational needs are scientifically studied. This implies that we must think of local districts not as complete, separate entities, but rather as parts of a larger whole. With this kind of knowledge thoroughly known and understood, it will be much easier to develop, propose and obtain needed legislative support at both the state and Federal level.

The impetus of the separate bits of educational facilities planning and construction legislation, together with the other programs affecting facilities administered by the several agencies, demand that there be more and greater intra- and inter-agency cooperation, coordination and communication. At the Federal level, a number of agencies sponsor and administer educational programs with little or no inter-communication. I've already mentioned a few of them and although each separately is important and effective, all would be more effective were there greater coordination of their activities.

In terms of comprehensive community planning, including Federal, state and local agencies, there is involvement with urban renewal projects, the routing of expressways, the constant revision of zoning and building codes and many other factors of comprehensive community planning that strongly suggest that school planners be included to adequately provide for educational needs. As a matter of fact, it is becoming more apparent that as school building planners we must become more proficient in other endeavors as well, including finance, community planning, law, perhaps politics, and many others.

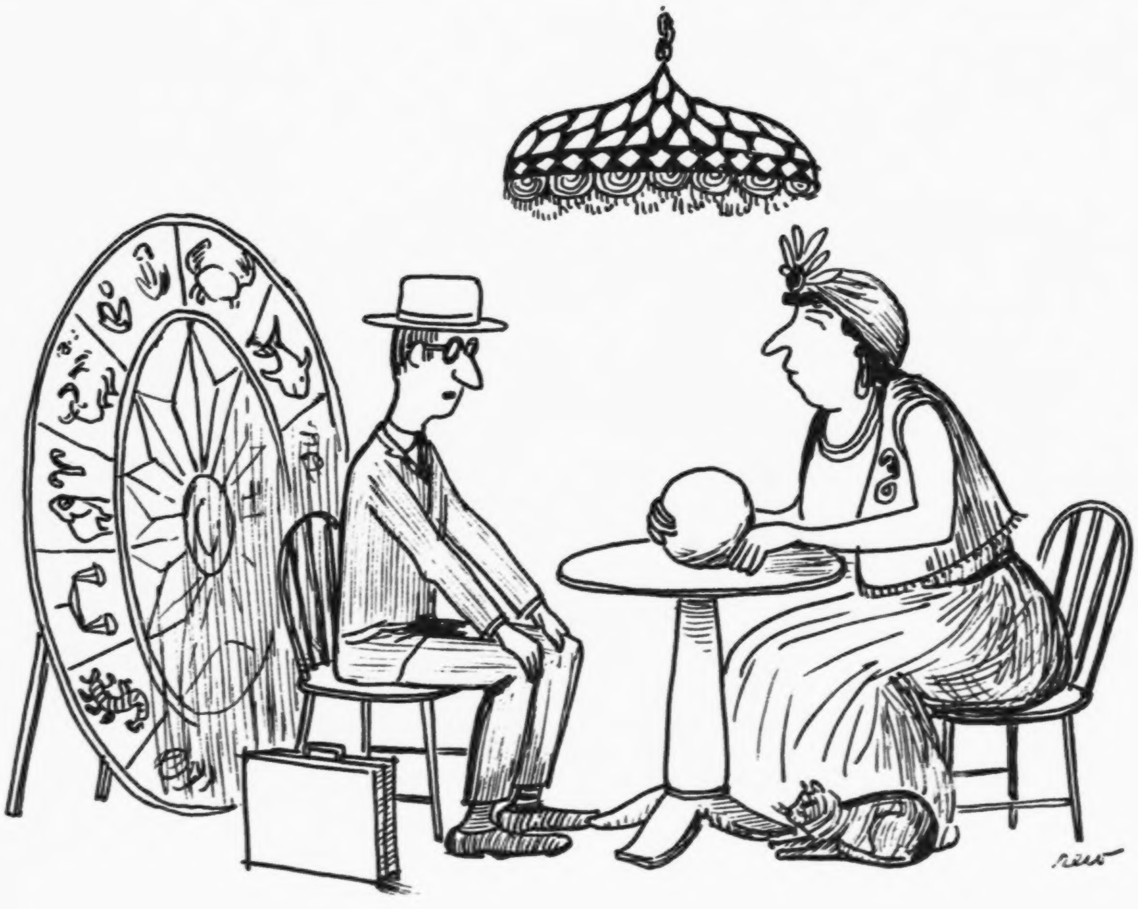
SUMMARY

I'm sure that many of you who have been more directly involved in many of these programs could add to the list of implications. Rather than to simply add to the list and then ignore it as has been done so often in the past, I think that, as a Council and as individuals concerned with educational planning, we should utilize the various Federal programs as best we can. We should also be prepared to work toward the advancement of further kinds of assistance as needed. After all, when we talk about the use of Federal funds, we are talking about our own money; money that possibly wouldn't otherwise be available. We must plan for it.

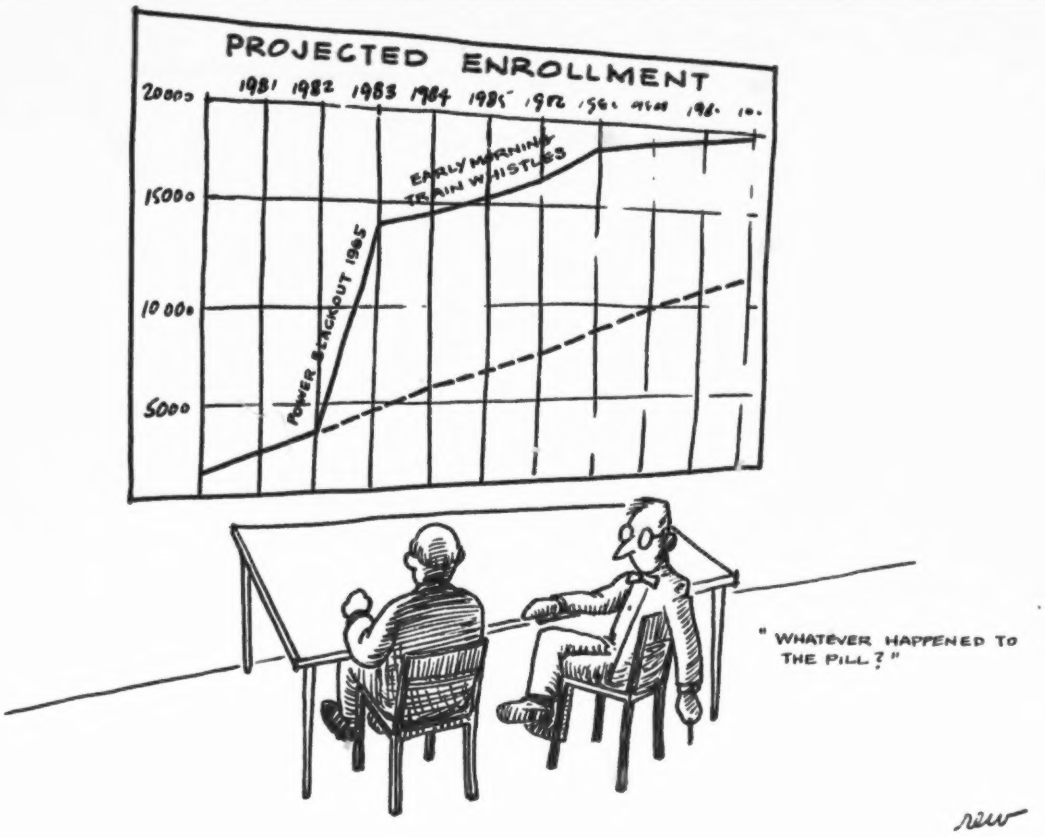
LONG RANGE PLANNING

— or —

HOW THE EXPERTS DO IT



CAREFULLY ANALYZE THE FUTURE


PROJECTED ENROLLMENT
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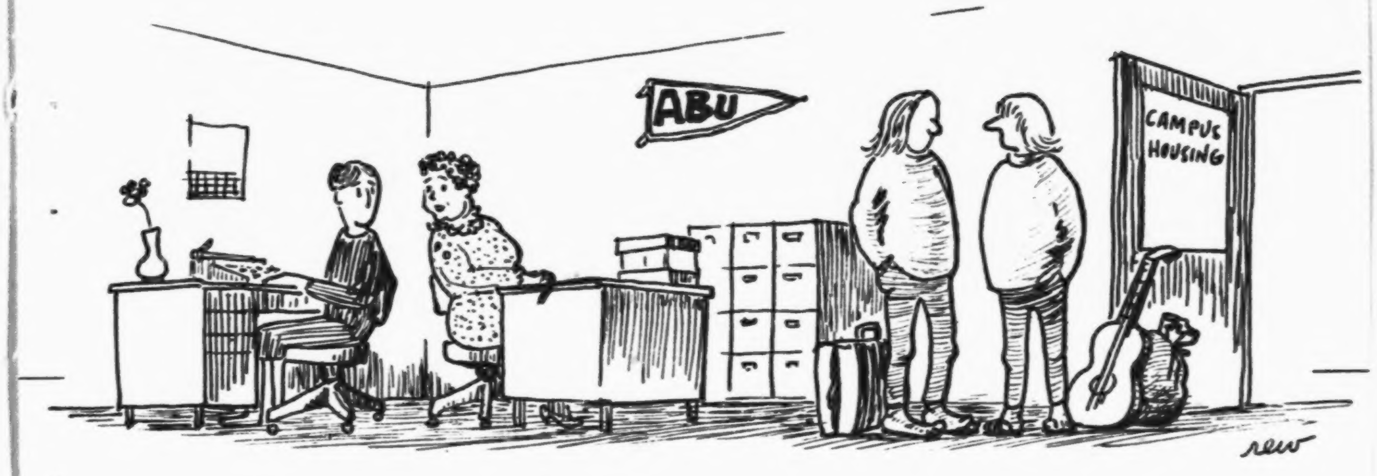
"WHATEVER HAPPENED TO THE PILL?"

EXPERIENCES DETERMINE GROWTH RATE


ABU
CAMPUS HOUSING
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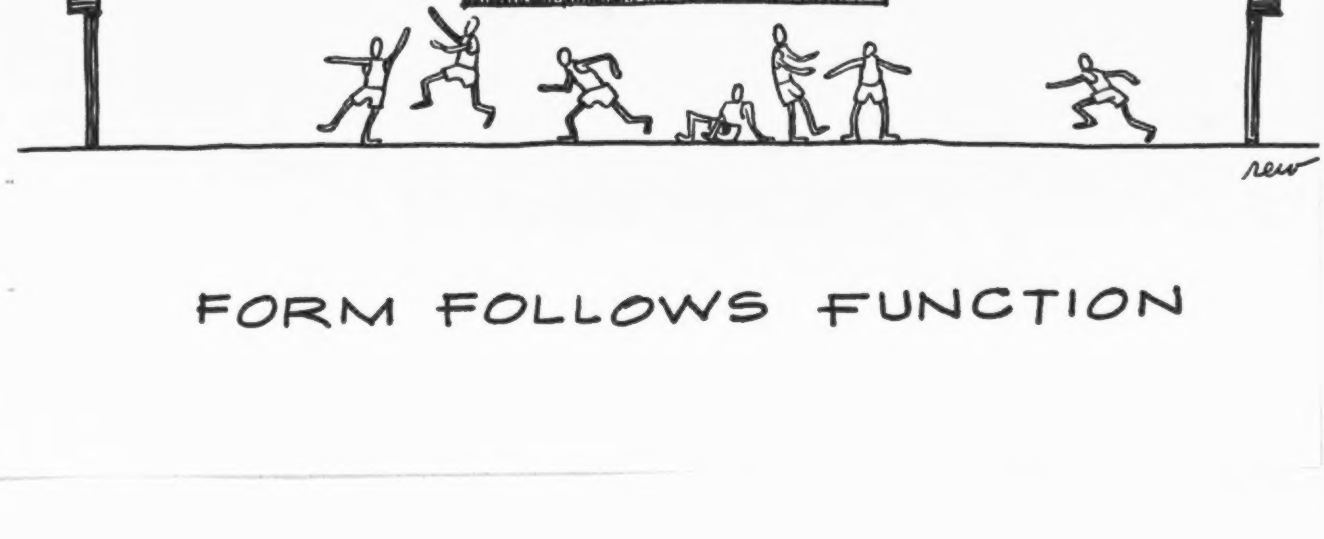
PLAN FOR ALL TYPES OF OCCUPANTS

REMEMBER!



FORM FOLLOWS FUNCTION

THIRD GENERAL SESSION

PROBLEMS IN PLANNING SCHOOL BUILDINGS

FRANK E. IRWIN,
Director—Presiding

Dr. James D. MacConnell emphasized the importance of getting across to people the very existence of problem—created by the continual increase in school populations and its uneven distribution, with large cities even now being rebuilt. The problem is further complicated by radical changes coming so fast through technology, methods and rising costs. It is this with which we must cope.

Dr. John Gilliland—Of prime importance in this change is the emphasis on education and the quality of that education. With regard to this, particular attention is now being given to the organization and presentation of knowledge. In terms of facilities, we find that classrooms still follow the typical pattern dictated by long-established conventional uses; the design of spaces for learning has not kept pace with the development of instructional methods. Dr. Gilliland focused attention on the facilities required for the effective utilization of instructional aids in media: spaces for instruction and learning, for production and for storage and retrieval of this information—all planned as an inter-related system to function well educationally.

No other type of educational facility is receiving more attention than the resource center or library. The problem for educational planners is how to store and handle all the various types of resources other than books and have them readily available for student use.

Instructional media, films; tapes and slides broaden the educational process, but alone will not provide an education. Teachers will not be replaced by them, but rather, find appropriate roles for them. The utilization of these media has been fragmented and must be replaced with an integrated systems approach which will bring film makers, television specialists, graphic art and equipment manufacturers together for effective media uses.

There are many examples of these technological advances which will be adopted by our schools: e.g., television recording devices will become dependable, less expensive and adaptable to color. When this happens, significant changes in technique and methods of teaching can be expected. No longer will live demonstrations be necessary; the benefits of broadcast television will become more useful through recordings and reuse at any desired time and place.

The use of such media will require an efficient system for storing and retrieving information . . Use of dial system will permit this information to be cataloged and available upon request.

Dr. Gilliland further demonstrated the "explosion in technology" in this field with which we must cope if facilities are to be made continually adaptable: e.g., an entire publication recorded on three tiny pieces of microfilm and the Bible recorded on a square so tiny, it was not visible to all assembled. The implications are tremendous! The expanded range and sophistication of methods in the field of instructional aids will have significant and extensive influence on the design of learning spaces. All those responsible for building schools and the teachers and specialists in the use of instructional media must contribute a conscious effort toward suitable design.

George Galloway, AIA, brought to the attention of the audience a few of the architects' problems in terms of the division of responsibility: areas not all architects are prepared to handle such as lighting, communications and landscaping. The areas of responsibility and the need for consultants and/or outside experts must be clearly understood in individual situations so as not to create unnecessary problems and questions regarding fees or coordination. On the other hand, one area gradually being included as the architects' responsibility is that of equipment because it is increasingly becoming an integral part of the physical plant. This, however, is not always understood by the planners and can create problems when handled by someone else.

John Shaver, AIA, spoke on two important problems. (1) The necessity of including people who will use facilities in the planning phases of the design or at least some in-service education on the use of such facilities. Developing new concepts in these building designs is of little use if administrators, teachers and custodians are not educated in their functions. (2) The matter of approaching design in the proper methodology; in our complex society today, we need to know more about the numerous factors involved in planning beyond the basics of program and functions which form the proper starting point; and, factors such as light, color, acoustics, temperature, humidity, spacial conformation, structure and site, including climate, topography, neighborhood characteristics and traffic patterns, all must be considered.

A planning team with a well-coordinated planning process in which architects and educators play key roles is needed. Much study in this area is being carried on at such places as The Environmental Design Centers of the University of Wisconsin and Kansas State University should be utilized.

Dr. Gilliland speaking for Dr. Pierce related the problems he had in two specific areas of school construction in North Carolina: The first, bonds vs. pay-as-you-go (added tax) in financing school construction; each has arguments pro and con. The most significant recommendation made to each district is to have a long-range plan for the total school development which includes a plan for financing.

The second concerns the problem of single vs. multiple contracts. North Carolina must, by law, have a multiple contract and this has served effectively except in the case of small contracts where it is often difficult to have work completed. Complications are inherent in both types and are effected by many outside factors. As an example, in North Carolina, a central state-wide system of purchase and contract in regard to furniture, equipment and actual building materials is practiced. This alone could lead to the necessity of single contracts in the future.

Dr. Gilliland added that he felt that the necessary inter-relationship of all people involved in the planning and preparation of a school and their changing roles in this effort, will, in itself, present problems for the future which must be considered.

At this point Dr. Gilliland threw out to the panel a question for their consideration involving the spiraling costs of construction complicated on either side by the fact that schools across the country have a monotonous sameness to them and yet the lay public generally interprets any change in design in terms of added expense.

Responses from the group reflected a mutual concern for this problem but pinpointed some of the inherent complications in each approach to solution. For instance, the communications problem: "the public must be kept informed on the planning process" was reiterated by some, emphasizing participation in the early stages; and yet many school districts have had the experience of developing an expanded program of public relations only to have a bond issue voted down by those who do not or will not keep themselves informed. One speaker advocated open mindedness, or having no preconceived notions relating to the favorability of any particiular shape. He stressed the point that such shapes are important only insofar as they serve the function of the structure.

Subsequent contributors to the discussion referred back to each of the problems or presentations; a free flow of ideas ensued.

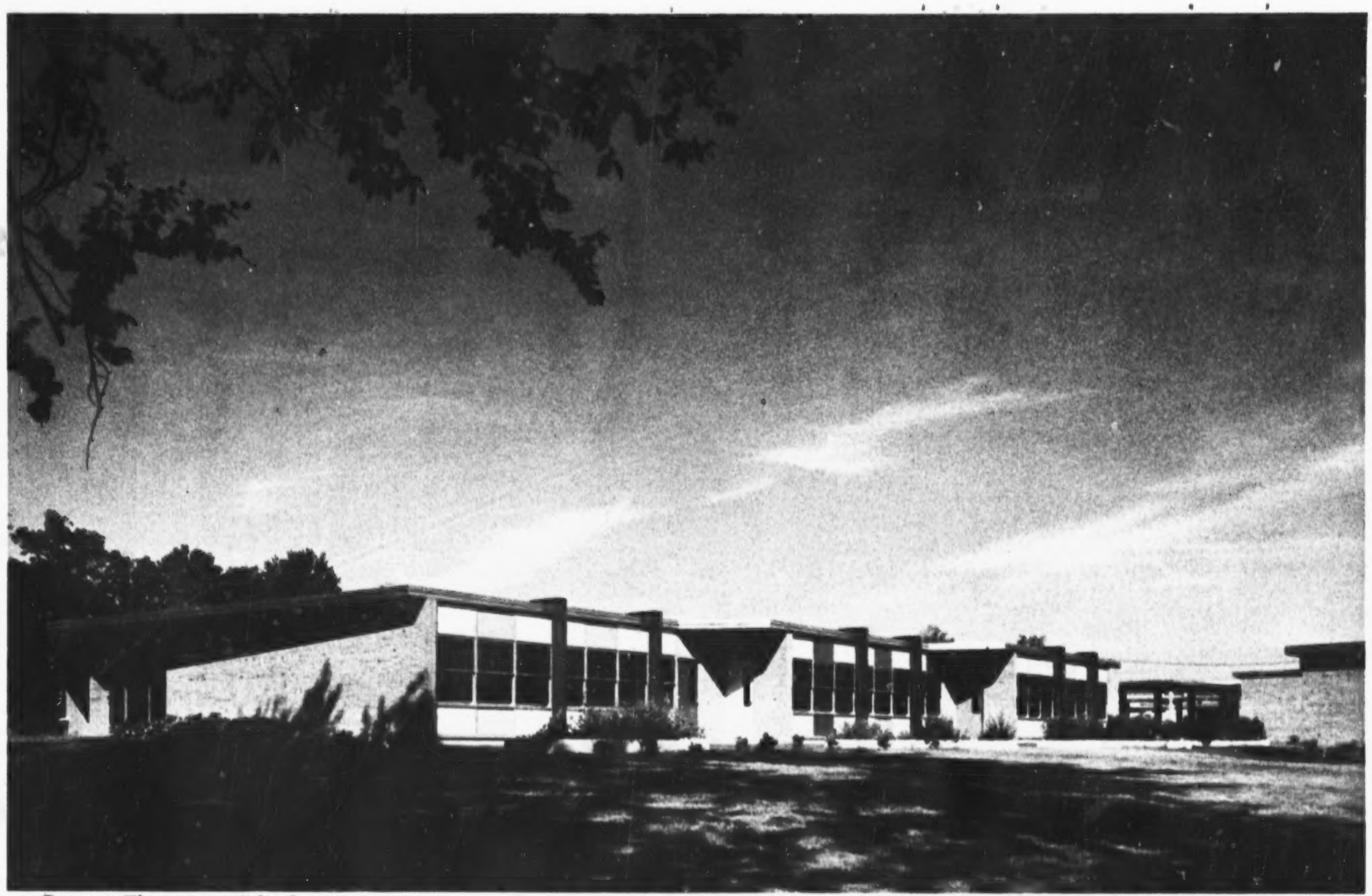
With regard to the educationally functional aspects of school building, reference was made to the MacFerson Building in Kansas and the fact that it was less expensive to build than one of the traditional types under construction at the same time. Mr. John Shaver, the design architect, explained some of the reasons: the contractor made a complete breakdown of his bids on both types of building for comparison; savings were noted on such items as outside masonry, wall construction and foundation walls. Of significant importance was the reduction of window area and the subsequent savings for heat and air conditioning installations. The difference amounted to $2 a square foot less than the conventional.

In response to questions regarding multiple vs. single contracts, Mr. Irwin referred to one study which reflected a wide divergence of practices, but noted that based on cost information "we have always had the multiple contract coming in cheaper than the single contract." However, too few projects have been bid both ways to reflect any general rule.

When questions were asked about space utilization and electronic gadgetry, Mr. Shaver, taking exception to the term "gadgetry" elaborated on the electronic teaching devices, beyond closed circuit TV, and their future in the schools by prescribing communication center control rooms in every building which will provide the space for television but also any electronic reproducing equipment which can reproduce tapes, slides, strip films, video tapes, program learning materials—anything that is now currently in use. As technology develops and makes it more logical, it can be electronically transmitted throughout the building. Now it is up to the educator to say how much of this he is going to use. But our buildings, we think, should be planned to have the capability of moving into the use of these materials as this technology develops to the point where they are practical.

Flexibility was introduced by Dr. Trotter as an important by word, meaning more than dividing space—the ability to control environmental factors such as light and sound.

John W. Gilliland—In way of summary, it seems to me that we have tried to bring together our thinking along the line of providing a better environment for learning. That is, the physical conditions which may be designed into school buildings that provide the kinds of conditions whereby people perform at an optimum level. We talked about school building costs, however, we ended that with a note that the really important thing about school building costs is whether or not the building that we design serves the purpose, the function that it ought to serve. And, this is the way we ought to examine costs. We brought up the compact school; it really doesn't matter whether you compact it, or stretch it out, high-rise or underground, large expenditures for glass or windowless; it's what you do inside that facility that makes or breaks it. Those aids to performance that make it possible for learning at a high level, these are the things that we have to keep in mind as we plan ahead.



Campus Elementary School

Scrimenti, Swackhamer and Perantoni, Architects

SPECIAL SESSION

SIGNIFICANT RESEARCH IN SCHOOL PLANNING

DR. WALLACE H. STREVELL,
Chairman, Research Committee—Moderator

This special session is designed to enable Council members to present research papers or research related materials consistent with the Research Committees desire to encourage the presentation of research papers at annual meetings. Equal time will be provided to the speakers and the audience is invited to participate in a short discussion of each presentation.

I've been asked to make a few comments regarding the NCSC Abstract Service, so I will lead out on that subject. As we enter the second year of the Abstract Service the USOE-NCSC funded Houston study had been completed with 1,000 documents and 1,000 resumes. The Board of Directors has authorized funding for the Abstract Service which will produce four journals during the coming year. I'm sure that for most of you the Abstract Journal is visible evidence of the service.

The Executive Committee invited 30 Council members to serve as abstractors; they accepted the appointment and have completed the work. Now in its second year of abstract service the Research Committee can accept additional abstractors. The Committee also is searching for more research reports in the school facilities field. We would appreciate your calling to our attention the papers, reports and materials we've overlooked. Also, if you'd care to offer your services or nominate additional abstractors, we welcome your participation.

Now that the project is not under contract we are free from certain limitations of last year. We can report all types of research contributions, technical papers, unpublished research, state department bulletins, engineering studies, academic research, or exemplary practice. Exemplary practice certainly is not exactly research, but it is a basis for research and should be recognized.

As we have developed the abstract service we have become more liberal in our interpretation of the kinds of documents included. In the future we would hope to exploit the value in the Abstract Service. Possibly the service can be used to identify areas where research is needed. Certainly we can recognize contributions and disseminate them immediately.

Finally, regarding unfinished business, it is our desire to be approved for a full-scale School Facilities Information Clearinghouse, national in both character and scope. We think of it as endorsed and quality-controlled by NCSC. We also think of it as funded by USOE, and in the planning we have visualized the Executive Secretary as the coordinator of the Clearinghouse, the present Abstract Service being the technical service branch.

With regard to unfinished business, in the future lies the means of computerizing the data bank and information retrieval system interlocking with the data banks of other clearinghouses and other agencies of government as well as with privately operated data banks. Indeed, it is quite fantastic, but it can be done if the source is prepared to use uniform retrieval terms, since it is possible to attach as many as 15 retrieval terms to an item without losing the value of categorical details. Another aspect of the operation is that of NCSC consultants writing summary statements.

Finally, recognizing that the second journal was published about three weeks ago focusing on the service, we have received an increasing volume of correspondence. The Clearinghouse Proposal contemplates answering from 100 to 300 letters a week, which on a national basis, is not at all unreasonable. You can imagine the correspondence bureau that would be required to handle that volume of work continuously. The future application may go considerably beyond present experience.

SCHOOL CONSTRUCTION SYSTEMS DEVELOPMENT

DR. JOHN BOICE

I think this is the third consecutive year that I or one of my colleagues has appeared before you to give you a report on the progress of the SCSD project we have started. Last year when I reported to you we had not yet built any schools using the system, we were just in the process of going out to bid on the first schools and I promised this year to bring you a report on the progress and success we may have had during the past year in actually getting some of these schools constructed and into operation.

There is a small report on some of the schools on the SPL report that you were given which tends to bring to you some of the information on the cost of the schools and just about where we are. The first school in the project to be constructed using the thesis was a large high school with some 3,000 students. We had everything go wrong with that project that can go wrong with a project.

One of the problems we had initially was getting the steel from the steel fabricator. He had to build a new plant, order new machinery, make it operable and turn out the project steel for our five schools. It turned out to be a bigger task than any of us had anticipated. From time to time he managed to sell a few steel items to somebody else which interferred with our progress. We had to take a little action there to correct that condition.

During the course of construction there were windstorms which blew down brick walls. They had rainstorms that filled up all the trenches and their swimming pool floated away. These things, I guess, were all part of the job of constructing a school, however, we didn't anticipate these things in our programming, and didn't allow time to go back and rebuild part of the school from time to time.

In the end result, however, the school opened on time in September with some 2,400 students. The gymnasium was not completed but we feel we were indeed fortunate to get that far. We have visited the school several times since its opening and they seem to be operating in pretty good shape. I wouldn't say that "all the bugs" have been ironed out as yet, but we did feel that for a school of some 240,000 square feet constructed between October, 1965 and September, 1966 we did pretty well to get it opened in September.

Additional schools were completed during that period. Some are listed in the SPL report so I won't elaborate further.

I have slides showing some of the schools that have been completed or are partially completed. At the present time we have six schools completed and occupied.

Six additional schools are under construction; they will be completed during the next year. The project, as you would imagine, has not been without its moments of great stress. As yet, we have not had a chance to evaluate the success of meeting the objectives. We will attempt to do this in the next year and we will know more about it after the kids have had a chance to test what educators, engineers and we thought were good ideas to see whether the schools are going to stand the gaff of actual use. (Films shown)

Q. John, did you say anything about the cost? Do you have any cost figures?

A. I put all the cost figures in the SPL report there, the total cost for each of the projects and the number of square feet. Divide it out if you want to find the square footage costs. We found it very difficult, quite frankly, to get what we consider real accurate cost figures even though we had access to all the information. We know exactly what each of the components costs were but we had a little more trouble with some of the general contractors figures.

Q. What's the maximum of clear span that you worked with in this thing?

A. In the academic spaces the maximum clear span is 75 ft., in the gymnasium spans it was 110 ft., the academic spans depth was 3 ft. and for the gymnasium spans it was 5 ft. These lengths were on 5 ft. increments, incidentally, from 30 ft. through 75 ft.

Q. Do you feel you can go more than 110 ft.?

A. The system as developed, does not go over 100 ft. Districts that we developed for did not see any need to go greater.

Comment: May I say that using a similar system down at the University of Mexico, they have gone 270 ft. clear span without any interior supports whatsoever, a little thicker but using the same system on a basketball arena.

Q. Have you used any multi-story construction yet?

A. The system was designed for two story construction. Quite a few of the schools used some two story construction; it was primarily in the library and administration areas.

Q. Have they been completed?

A. Yes, the Fullerton School that you saw had a large structure under one roof, part of that was two story.

Q. Is it your opinion that the contractors are increasing their prices?

A. We have been trying to determine this, of course, this is a very difficult thing to determine. If you ask the contractor he says, of course, "No." I didn't put anything extra in there, I did this thing perfectly, honestly. We've had some suspicions and occasionally this had been the case. Of course, with anything new and a different method of bidding, which this is, you expect that some people will be very cautious and protect themselves by probably putting in some extra money to take care of these contingencies. Most of the contractors that we've had on the projects have liked the way it has gone for the most part. We have not progressed smoothly with the first projects because we had additional problems, but most of the contractors who bid on the first projects also bid again when the second time came around on additional schools which seems to indicate that they thought it was worthwhile. This is the only guideline we have at the present time to tell whether or not this method of bidding is acceptable to the general contractor. Some of them have told us that they like it because it got rid of some of the areas in which they had the biggest headaches. They were glad to get rid of it and only do the supervision on the entire projects. Others wouldn't touch it. They wouldn't bid.

Q. John, in how many instances did you use pre-bid conference and if so, did you find any correlation between these kinds of conference and your ultimate costs?

A. We used a pre-bid conference on all the schools but one. Most of the contractors we had attending meetings bid on more than one project so that we had after the initial 3 or 4 conferences some of them didn't show up for the next couple because they felt they knew what it was all about. We had a building here on the campus and many of the contractors took the time to come all the way from Sacramento and

Los Angeles to look at it, talk to us and see how it went together. Most of the contractors we talked to said that because of the pre-bid conference they thought they were able to do a better job at bidding. Whether it affected the price or not, I don't know. We have a different method of bidding in this state than a lot of states and everybody knows just what the top price can be on a state aided project and knows how much you can bid and still get the job. This, of course, affects the way people bid. We haven't had a chance to analyze it yet, but it seems that the lowest price per sq. ft. of all our buildings came on the two non-state adied projects and we can't explain it, so I hope nobody will ask me to try.

RESEARCH DEVELOPMENT SEMINAR

DR. ARTHUR WOHLERS

Bill Chase this noon and several speakers this afternoon made reference to the need for information which research might provide. As we look through the *Guide* one cannot help but be impressed by the relatively large number of statements which are very definitive as you look at them, but when you investigate the basis for the statements you find that very few of them are based upon research. Most of them are opinion which has developed over long years of experience, so in one sense one might say that this is another kind of research.

Many of us in conversation and in public discussions have indicated that there is tremendous need for research in the school plant field. We know, of course, that some of it has been done and by various methods. We believe that there is a distinct need to provide more research and involve more of us in research associated with education generally. Therefore, we propose a Research Stimulation Seminar. We have submitted a proposal to USOE for partial funding of the project.

The Research Stimulation Seminar is divided into three parts. There is a pre-conference, a conference or seminar situation and then a series of post-conference experiences. I'd like to explain first the conference we have in mind and then tell a little about the three imposed activities.

At the conference itself, we hope to have a series of consultants or presentors to review with a select group of possibly 25 people from the membership of the Council information about research, the kind of research techniques that might be applicable in the plant field, to review research that has been conducted in the plant field, and hopefully, to suggest areas where research appears to be needed.

For about two-thirds of the conference which is to be three days, we hope to provide opportunities for these 25 people to work individually or in small groups on areas of research that the individuals may have. This, we believe, will make it possible for the people to leave the conference setting with some pretty well defined proposals for resarch projects that they would like to work on either as individuals or as teams. We hope that the presentation on research will include some things where systems approaches may be appropriate or situations in which people in two or three institutions, public school systems or state departments might be involved in a project.

Prior to the actual conference setting we hope to ask each of the 25 individuals or groups of individuals to define in simple fashion a hunch they may have of some problems they would like to research. These statements will then be presented to the consultants we plan to have at the conference for grouping together and for suggesting preliminary steps that the various persons might take to make the three day conference sessions most fruitful.

Following the three day session we hope to do about three different things. 1) We would like to develop a document which we'd like to call Proceedings, indicating things that occurred during the conference, the speeches or summaries of speeches. 2) We would also like to have a Newsletter of possibly three or four editions over a period of 12-15 months. In the Newsletter we would like to make report progress, cite new research areas which seem to have been opened up by the studies, resulting from the three day conference sessions and provide to the membership of the Council information related to research in the plant field.

Along with this project are some complications; one of which might be this: Suppose we have at the conference 25 "red hot" researchers who develop 25 proposals, each for $100,000, $200,000 or $300,000. Let us suppose that they all happen to end up at the same funding agency. Any single funding agency might not be in a position to fiund all of them or feel that since they can't fund all of them they would turn them all down. This suggests that we may have to be careful about how they are established and where we seek research support.

It also suggests, that certain other agencies might be in a position to assume some of the costs of these projects, but we are taking a risk at this particular point. Fortunately, we do have some members of the Council who can advise us from time to time as to the setting respect to this project. We think this will be an opportunity to move out and to generally develop this area.

We hope too, following the conference, to organize four or five regional meetings of about four or five participants to meet with a person who would be of maximum benefit to them to review objectives, problems and procedure. In some cases the advisor might be a specialist in physical facilities. In another situation a specialist in research methodology may be advisor, or a computer specialist might advise another group.

You see then, that we are trying to take 25 people who have some ideas about problems they would like to investigate and to help them along the line as much as possible with their particular research interest. Obviously, it isn't likely that all 25 would have projects that would fully develop in a period such as this. As part of the conference situation we hope to consider the implications of the newer things coming onto the eductaional scene and the research opportunities they may provide. These people can search for opportunities and feed this information back to us so that through the "Newsletter." I believe we have attempted to develop here what we might call a multi-pronged approach to a problem that needs to be attacked from all sides I hope we have done it externally and internally, from the top down and the bottom up.

MIDWESTERN STATES EDUCATION INFORMATION PROJECT

DR. GUY TOLLERUD

This Midwestern States Project consists of thirteen states: Iowa, Kansas, Michigan, Minnesota, Missouri, North Dakota, South Dakota, Wisconsin, Colorado, Illinois, Indiana, Nebraska and Ohio. It is funded by the U. S. Office of Education and administered by the Iowa Department of Public Instruction. The project will involve the gathering of information about the following:

The project is administered by a director, Dr. Sam Bliss of the Department of Public Instruction in Iowa. A policy committee is comprised of the state commissioners in the thirteen states or someone selected by the state commissioner to serve on the policy committee. There is a project supervisor in Iowa; both he and the Director are full-time employees. The Supervisor for the Facilities Group is Dr. James Mitchell.

Our purpose is to determine, for about two years, what information each school district, each state department of education, should have each year in the areas of finance, facilities, instruction, personnel, and pupils on a uniform basis for reporting to USOE.

I'm sure many of you realize that school superintendents are tired of filling out a lot of reports for state departments of education. In fact, as a point of this study, we have been reviewing the many reports required in the thirteen departments of education. It's amazing how many reports there are. We believe that one of the accomplishments will be the simplification of reporting forms. We hope to answer such questions as: For whom is it important? Why is it needed? Where may it be obtained? Ultimately, it is expected, if we in the thirteen states do our job well, that all fifty states will adopt the same data gathering system. If we are successful, anyone from anywhere in the United States can obtain information from any source, as recorded by the U. S. Office of Education or from the states or local districts. The information will be put into a data bank, at a location to be determined, so that it is readily available to whomever may need it.

We welcome any help anyone wishes to give us on this project. There is a coordinator in each state working with the five people on the project. It is unfortunate that those of us in the thirteen state departments have only limited time to devote to this very important project. I might add that we have a meeting once a month. So far the meetings have been fly-in meetings. We've flown into Des Moines and Chicago, spent all day at the airport working hard, then fly back. We have met here in Palo Alto because we felt that most of the thirteen state directors would be here attending the meeting of the National Council; therefore, we could meet prior to the National Council meeting.

Dr. Strevell—I would like a few examples. What would be four or five factors on school building that you would collect?

Dr. Tollerud—I think Dr. Strevell must have done some work in this area, therefore, he realizes how difficult this is. We are not yet at the point where we have determined what the items are to be. We're trying to start with an open mind—not influenced by what is being done or what has been done in the past. We rather think that Congress will have increased interest in school construction. We are trying to anticipate the kind of information Congress will want about school facilities. What have we in this country in school buildings, instructional spaces, auxiliary spaces and all those things you know so well? Congress may want to know what we have, what it is worth and what is needed. Perhaps the state legislators need the same information.

I fear even to mention one item, but we have talked briefly about many items. Should we know how many elementary schools are in the state? Or schools running from K through 6 for example? Or 7 through 9? Or 7 through 10? 10 through 12? Should we know how many buildings we have? Should we know how many libraries we have? Should we know what the costs are? The unit costs? Please, we need help.

FUAP—FACILITIES UTILIZATION ANALYSIS PROGRAM

ROY SEDREL AND DR. E. GORDON RICHARDSON
Iowa Educational Information Center
University of Iowa
Iowa City, Iowa

INTRODUCTION

The birth rate explosion of the 40's and 50's is being felt in every educational institution in the nation—from kindergarten to college. Many educational institutions are engaged in accelerated building and expansion programs and are still not able to meet current demands. Needless to say, it is essential that our nation's schools utilize every available facility to its fullest extent.

In an effort to increase facility utilization, many school districts employ trained consultants from universities, state departments of education, and private firms to study current use and suggest methods of gaining optimum utilization.

These facility utilization studies involve repetitive calculations which are time consuming and costly to perform using the ordinary desk calculator. In order to increase efficiency and reduce the cost of these studies, the FUAP program was developed. This program uses a high speed electronic computer to perform the calculations and produce tables showing statistics on current utilization.

THE ANALYSIS

One method of analyzing facility usage involves the establishment of relationships between the factors of space capacity and space occupancy. Space capacity is simply the number of pupil stations in a given room or educational area. Space occupancy is the number of pupils occupying the stations at any given time. Many school facilities are designed for special purpose uses, e.g., science laboratories, vocational education classrooms, art rooms, music rooms, and gymnasiums. Consideration must be given to these special use rooms when analyzing utilization. In addition, each space must be analyzed in terms of standard or optimum capacity, as well as actual capacity, if the consultant is to have adequate data for making sound recommendations. The FUAP program is designed to employ the factors and considerations described above. Formulas used in the program are:[1]

I. Room Utilization by Time Period

$U_a = P_2/S_a \times D$

$U_s = P_2/S_s \times D$

---

[1] Edgar L. Morphet, "The Measurement and Interpretation of School Building Utilization," *Contributions to Education*, No. 264, (New York: Teachers College, Columbia University, 1927), p. 102.

II. Total Room Utilization
$U_a = P_1/S_a \times W_p$
$U_s = P_1/S_s \times W_p$

III. Building Utilization by Time Period
$U_a = P_2/(S_a \times W_p)$
$U_s = P_2/(S_s \times W_p)$

IV. Total Building Utilization
$U_a = P_1/(S_a \times W_p)$
$U_s = P_1/(S_s \times W_p)$

U_a = The percent of utilization based on the actual number of pupil stations in the room.

U_s = The percent of utilization based on recommended standard, or maximum, number of pupil stations the room will accommodate. If standard number of stations is greater than maximum allowed, maximum is substituted for standard.

P_1 = Pupil periods per week calculated as follows: The sum of the number of pupils scheduled in a room all class periods of the day multiplied by the number of days per week the various classes meet.

P_2 = Pupil periods per week calculated as follows: The number of pupils scheduled in a room during a given class period of the day multiplied by the number of days per week the class meets.

S_a = Actual number of pupil stations in the room.

S_s = Standard number of pupil stations in the room calculated by dividing the total square foot area of the room by the standard number of square feet recommended for a pupil station. If the maximum number of pupil stations allowed per room is less than the standard, maximum is substituted for standard.

W_p = Periods in the week calculated by multiplying the number of time periods per day by the number of days per week school is in session.

D = Days per week a given class meets.

THE PROGRAM

The FUAP program will analyze from 1 to 200 spaces categorized by type of space (1 to 15 type categories), for each time period of the school day (1 to 10 time periods) in a single pass. The program is written in Fortran IV and was originally compiled on an IBM 7044 computer. The program, exclusive of the compiler, requires approximately 15,000 words of memory capacity.

The program produces from 3 to 18 tables, depending upon the number of type categories established, showing percentages of utilization based on actual and standard (or maximum) number of pupil stations.

INPUT DATA

Input data required to compute utilization is of three types: (1) type description, (2) room description, and (3) room use. Type description is simply a description of the type of room represented by each type code used. For example, 01 = General Purpose, 02 = Science Labs, 03 =

Physical Education, etc. Room description information includes the room number, type of room code, length and width in feet, area (required only if the shape of room is other than rectangular or square). If area is given, length and width are omitted, standard number of square feet recommended for each pupil station, the actual number of pupil stations in the room, and the maximum number of pupil stations (optional and necessary only if local policy established maximum pupil-teacher ratios which may be less than standard number of pupil stations). Room use data is the number of pupils meeting in each room each period of the day and the number of days per week that a particular class regularly meets. Multiple cards may be used to describe the day-met pattern of any given class.

In addition to the above, school header information is required. The header information is simply the district name, the school name, and the standard number of time periods in the regular school day.

OUTPUT TABLES

The number of output tables produced depends upon the number of type categories used and will range from a minimum of three to a maximum of eighteen.

Table 1 presents by room the area in square feet, the number of square feet per actual pupil station, the recommended number of square feet per pupil station, difference between actual and standard, the maximum number of pupil stations permitted, and the standard number of pupil stations the room will accommodate, and the difference between maximum and standard number of pupil stations.

Table 2 presents the percent of utilization (based on the number of actual pupil stations) each period in the day for each room in the building. The total percent of utilization is shown for each room, for each period of the day, and for the entire building.

Table 3 is similar to table 2 with the exception that utilization is based upon the standard (or maximum) number of pupil stations rather than the actual number of pupil stations.

Tables 4 through 18 present the percentages of utilization of each room summarized by type of room. Two tables are produced for each type category. The table format is identical to tables two and three described above.

COST SAVINGS

Trial runs of the program, using both hypothetical and actual data, were made to establish time and cost data. The results of the computer runs were compared to conventional hand methods of table compilation. The comparisons showed a reduction of approximately 7 hrs. and 58 minutes in total time required to prepare the tables. Total cost savings were estimated at $75.00-$100.00. In addition to the savings gained through the reduction of time required to prepare the analyses, much more comprehensive and comparable data were provided by the use of FUAP program.

INPUT CARD FORMATS

CARD NUMBER 1—SCHOOL IDENTIFICATION

Columns 1-25	District name
Columns 26-50	School name
Column 51	Number of periods per day
Column 80	Card code (1)

CARD NUMBER 2—TYPE DESCRIPTION

Columns 1 and 2	Type code
Columns 3-27	Type description
Column 80	Card code (2)

CARD NUMBER 3—ROOM HEADER CARD

Columns 1-4	Room number
Columns 5-6	Type of space
Columns 7-9	Length
Columns 10-12	Width
Columns 13-17	Area
Columns 18-20	Pupil station standard (sq. ft./pupil)
Columns 21-23	Actual number of pupil stations
Columns 24-26	Maximum allowable pupil stations (may be used in lieu of columns 18-20)
Column 80	Card code (3)

CARD NUMBER 4—ROOM USE CARD

Columns 1-4	Room number
Columns 5-8	Period 1, Col. 5—number of days per week, Cols. 6-8—number of pupil periods per week
Columns 9-12	Period 2, Col. 9—number of days per week, Cols. 10-12—number of pupil periods
Columns 13-16	Period 3—data as above
Columns 17-20	Period 4
Columns 21-24	Period 5
Columns 25-28	Period 6
Columns 29-32	Period 7
Columns 33-36	Period 8
Columns 37-40	Period 9
Columns 41-44	Period 10
Column 80	Card code (4)

N

APPENDIX A

ROOM USE FORM

Room Number	Period 1		Period 2		Period 3		Period 4		Period 5		Period 6		Period 7		Period 8		Period 9		Period 10	
	Days	Pupils	Days	Pupils	Days	Pupils	Days	Pupils	Days	Pupils	Days	Pupils	Days	Pupils	Days	Pupils	Days	Pupils	Days	Pupils

APPENDIX B

EXAMPLES OF OUTPUT TABLES

ANALYSIS FOR DISTRICT DUBUQUE COMMUNITY SCHOOL SCHOOL JEFFERSON JUNIOR HIGH

TABLE 1

			Actual Sq.	Standard Sq.		Maximum	Standard	
Room	TP	Area	Ft. /Station	Ft. /Station	Difference	No. Stations	No. Stations	Difference
0001	8	1290.	46.1	35.0	11.1	-0.	37.	-36.9
0037	7	1628.	67.8	100.0	-32.2	-0.	16.	-16.3
0048	10	667.	51.3	25.0	26.3	-0.	27.	-26.7
0071	5	638.	14.2	20.0	-5.8	-0.	32.	-31.9

TABLE 2 UTILIZATION BASED ON ACTUAL

Room	Type	Per 1	Per 2	Per 3	Per 4	Per 5	Per 6	TOTAL
0001	8	78.6	0.0	14.3	60.8	85.8	0.0	39.9
0037	7	87.5	50.0	75.0	66.7	58.4	54.2	65.3
0048	10	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0071	5	49.4	64.5	73.4	71.2	56.0	42.7	59.5

TABLE 3 UTILIZATION BASED ON STANDARD OR MAXIMUM

Room	Type	Per 1	Per 2	Per 3	Per 4	Per 5	Per 6	TOTAL
0001	8	59.7	0.0	10.9	46.1	65.1	0.0	30.3
0037	7	128.6	73.5	110.3	98.0	85.8	79.7	96.0
0048	10	48.7	48.7	48.7	48.7	48.7	48.7	48.7
0071	5	69.5	90.8	103.3	100.2	78.9	60.1	83.8

TABLE 4 UTILIZATION ROOM TYPE 1 GENERAL PURPOSE BASED ON ACTUAL

Room	Per 1	Per 2	Per 3	Per 4	Per 5	Per 6	TOTAL
0112	38.9	97.3	44.5	44.5	38.9	77.8	57.0
0113	41.7	86.2	83.4	80.6	97.3	69.5	76.4
0116	55.9	91.2	91.2	97.1	88.3	88.3	85.3
0125	82.4	47.1	41.2	41.2	0.0	47.1	43.2

TABLE 5 UTILIZATION ROOM TYPE 1 GENERAL PURPOSE BASED ON STANDARD

Room	Per 1	Per 2	Per 3	Per 4	Per 5	Per 6	TOTAL
0112	63.5	158.8	72.6	72.6	63.5	127.0	93.0
0113	68.1	140.6	136.1	131.6	158.8	113.4	124.8
0116	82.9	135.2	135.2	144.0	130.9	130.9	126.5

ROOM INFORMATION FORM

District Name:______________________ School Name:____________________ Number Periods Per Day:__________

Room #	Type Code	Length In Feet	Width In Feet	Area	Std. Sq. Ft. Per Pupil	Actual Pupil Station	Max. Pupil Station	Room #	Type Code	Length In Feet	Width In Feet	Area	Std. Sq. Ft. Per Pupil	Actual Pupil Station	Max. Pupil Station

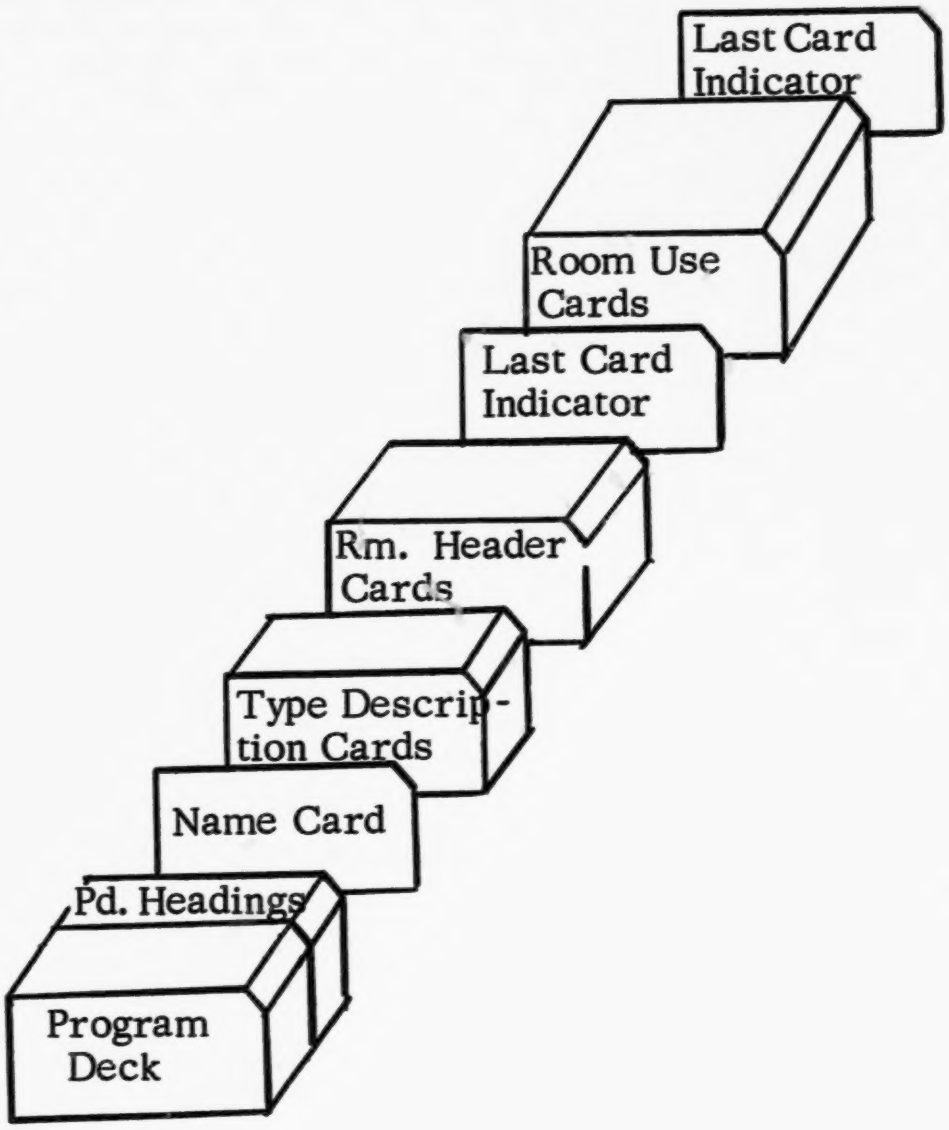
TYPE CODE DESCRIPTION FORM

Type Code	Type Description

TYPE CODE DESCRIPTION FORM

Type Code	Type Description

APPENDIX C


Last Card
Indicator
Room Use
Cards
Last Card
Indicator
Rm. Header
Cards
Type Descrip-
tion Cards
Name Card
Pd. Headings
Program
Deck

Sequence of Program and Input Cards

AN EDUCATION SPECIFICATIONS CHECKLIST

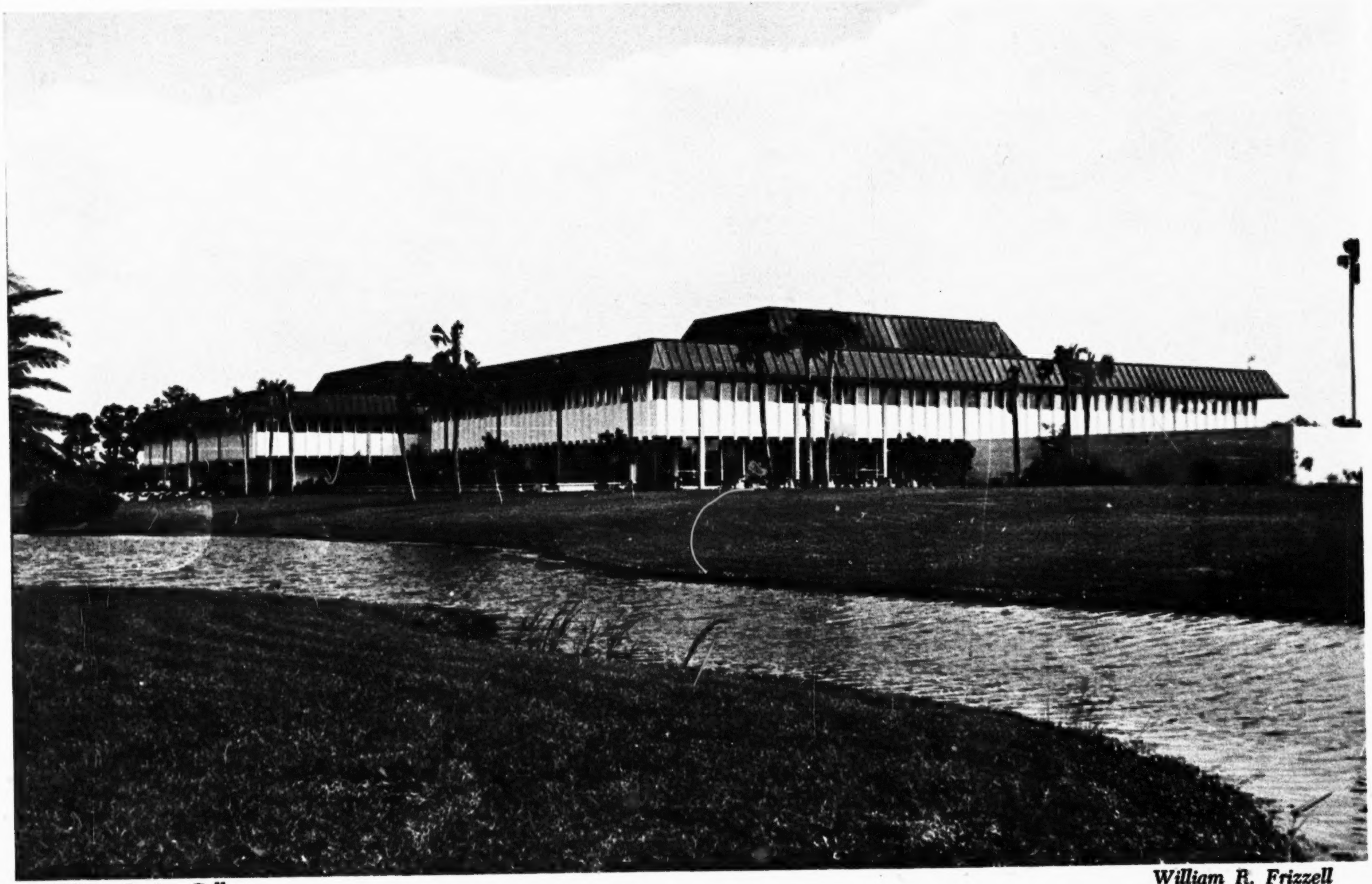
DR. WILLIAM O. WILSON

For sometime we've heard about educaitonal planning and educational specifications. Nothing hit me so vividly as when I went to Mexico where no one seemed to know what was meant by educational specifications. In working with teachers, administrators, and architects, we were asked, "What do you put in them?" Well, we couldn't give them standards. That's not what we wanted, we wanted them to think.

We decided that it might be a good idea to provide a checklist by which they could evaluate their own educational specifications. By which they could go over their document and see whether they had considered all factors. I'm sure all of you have heard people say, "If I'd just thought about that before we got the building!" It's a lot easier to change lines on an architectural drawing then it is to change a wall or stair tower. The checklist is a simple thing, but it does give you a list of many items to check. And it's covered item by item. A graduate student and I, (actually he did most of the work) developed this document to prove the purpose of school buildings. "What do we need to know?" We've tried to get four things in here: 1) Who are we supposed to teach? 2) What are we supposed to teach? 3) What methods should we use? 4) What equipment should we use?

Now, again, we are not trying to set up standards. I don't think there's a standard in this area, or in this document. It's merely presented as a list of items for you to consider. Have you thought about this? Have you thought about types of environment; the thermal, sonic and visual? They are worked into a series of tables: social studies, language arts, physical education, every area in both the elementary and secondary schools. It's self-explanatory, and it is rather interesting that the people who have used this document have found it very helpful. Many of them report that after they completed their specifications they went through this checklist and had to go back to include a lot of things they had forgotten.

I hope you have a chance to examine the checklist. If there are any questions, I'll try to answer them. It's a rather simple document, but one that fills a real need because a great many people ask, "What are we trying to do?" This, I hope, tells them.



Edison Junior College

William R. Frizzell

ARCHITECTURAL EXHIBIT OF SIGNIFICANT SCHOOLS

Selected by Area Representatives
NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION

COLORADO

Jefferson County, Prospect Valley School
Superintendent: Dr. W. Del Walker, Building 40,096 sq. ft. Cap. 600.
Architect: Langhart, McGuire, Barngrover

CONNECTICUT

Westport, Coleytown Junior High School
Superintendent: A. Gordon Peterkin, Building 93,000 sq. ft. Cap. 725.
Architect: Joseph Salerno

Madison, Durham Road, Elementary School
Superintendent: Robert H. Brown, Building 38,532 sq. ft. Cap. 670.
Architect: Stecker and Colavecchio

FLORIDA

Palm Beach, Hagen Road Elementary School
Superintendent: Robert W. Fulton, Building 68,116 sq. ft. Cap. 720.
Architect: Roy M. Simon

Tampa, Leto Comprehensive High School
Superintendent: J. Crockett Farnell, Capacity 1632 pupils.
Architect: McLane, Ranton, McIntosh and Bernardo

KANSAS

Wichita, Cleveland Elementary School
Superintendent: Dr. Lawrence Shepoiser, Building 29,630 sq. ft. Capacity 400 pupils.
Architect: Schaefer, Schirmer and Eflin

Wichita, Wichita Collegiate School (Private)
Headmaster: Randall Storms, Building 14,202 sq. ft. Cap. 140.
Architect: Schaefer, Schirmer and Eflin

Overland Park, Pawnee Elementary School
Superintendent: Dr. Donald Van Devander, Building 44,253 sq. ft. Capacity 750 pupils.
Architect: Marshall & Brown

Overland Park, Dorothy Moody Elementary School
Superintendent: Dr. Jack Bell, Building 32,438 sq. ft. Cap. 515.
Architect: Northern and Hamlin

MARYLAND

Washington County, Hagerstown Junior College
President: Atlee C. Kepler, Building 29,019 sq. ft.
Architect: McLeod, Ferrara & Ensign

MINNESOTA

Excelsior, Minnetonka High School (addition)
Superintendent: W. D. Nilsen, Building 89,000 sq. ft. Cap. 600.
Architect: Thorsen & Shorshov, Inc.

Rochester, Mayo High School
Superintendent: James V. Moon, Building 277,666 sq. ft. Cap. 2000.
Architects: Haarstick Lundgren & Associates, Inc.

MISSOURI

North Kansas, Oak Park Senior High School
Superintendent: Dr. Ruie B. Doolin, Building 219,954 sq. ft. Cap. 2000.
Architect: Kivett and Myers

NEBRASKA

Ralston, Karen Western Elementary School
Superintendent: Delbert Nelson, Building 28,716 sq. ft. Cap. 420.
Architect: Steele, Weinstein & Associates, Inc.

NEW YORK

Old Bethpage, John Fitzgerald Kennedy High School
Superintendent: Dr. Robert F. Savitt, Building 187,900 sq. ft. Cap. 1500.
Architects: Eggers & Higgins

PENNSYLVANIA

Abington, Abington High School, North Campus
Assistant Superintendent: Dr. Carl Manone, Building 295,059 sq. ft. Capacity 2200 pupils.
Architect: Caudill Rowlett Scott

VIRGINIA

Alexander, John Adams Middle School
Superintendent: Dr. John C. Albohm, Building 132,000 sq. ft. Cap. 1500.
Architect: Vosbect-Vosbect & Associates

WASHINGTON

Bremerton, Bremerton Public Schools (Elementary)
Superintendent: Armin G. Jahr, Building 22,800 sq. ft. Cap. 300.
Architect: Branch, Branch & Garrison

WASHINGTON, D.C.

Georgetown Day School (Private)
Superintendent: Mrs. Edith Nash, Building 46,051 sq. ft. Cap. 300.
Architect: Stanley H. Arthur

LIAISON REPORTS

Illuminating Engineering Society

DR. CHARLES D. GIBSON

Your liaison representative to the Illuminating Engineering Society has been active in I.E.S. affairs during the past year. Although involved in work on the Board of Fellows and Other Society interests, this report will deal with three activities of great interest to the National Council on Schoolhouse Construction.

First, your liaison representative continues to serve on the Executive Committee of the Illuminating Engineering Research Institute. During the past year significant progress has been made on I.E.R.I. research projects dealing with Transient Adaptation, Visual Performance and Illumination, Glare from Large Sources and Micro-Eye Movements. Work is continuing on Lighting Requirements for the Older Eye. All these projects have definite implications for the design of the visual environment in educational facilities.

A final report was received by I.E.R.I. on Dr. Harry Helson's extensive Color Preference Studies. In organizing more than 156,000 observer reactions into tables with responses ranging from high pleasantness to greatness unpleasantness, the report provides a method of forecasting whether a specific object color will be agreeable or disagreeable if used with a specific background color under one of five specific kinds of lighting.

The second item of specific interest to N.C.S.C. was the publication of a Guide for Lighting for Audio-Visual Areas in Schools. Your liaison representative was chairman of the School and College Lighting Committee for I.E.S. and also a member of that Committee's sub-committee which prepared the material for the new Audio-Visual Lighting Guide. Willard Allphin was chairman of the sub-committee and deserves the major share of the credit for the compilation and editing of this valuable piece of work.

The third activity of I.E.S. was the adoption with reservations of a new system for evaluating direct glare. Our National Council formally opposed the untimely action of the Illuminating Engineering Society in this matter because the new system had limited application and serves in its present incomplete state to further confuse the internationally highly controversial glare rating problem. The Council's position has been that it is not opposed to new ideas in glare rating techniques, but it wants them thoroughly proven as to their meaningful application to *all* types of light sources and amenability to evaluation under field conditions.

It is recommended by your liaison officer that N.C.S.C. members wishing to subscribe to a direct glare rating system continue to use the Scissors Curve method presented in the American Standards Association Guide for School Lighting and its own *Guide for Planning School Plants.*

THE UNITED STATES OF AMERICA STANDARDS INSTUTUTE

DR. JOHN L. CAMERON

The United States of America Standards Institute was established on August 31, 1966 to succeed the American Standards Association. Standards approved by the new Institute will be designated USA Standards. The same designation will also apply to all previously-approved American Standards.

As a member of the Construction Standards Board, your liaison officer has attended two Board meetings and voted on eleven recommended new standards or changes in existing standards since October, 1965.

Sectional Committee of Project A-53, Light and Ventilation, has been reactivated with members meeting in New York on September 15 and 16, 1966. The National Council on Schoolhouse Construction was represented by Henry J. Rissetto and James L. Theodores, alternate. Plans have been made to completely review and revise Light and Ventilation Standards.

AMERICAN INSTITUTE OF ARCHITECTS

DR. CLEVE O. WESTBY

When it learned of the change in the Council by-laws permitting architects to become associate members, the American Institute of Architects took exception to the provision limiting the number of architects from each state. It felt that those architects who were admitted to membership and whose names appeared on the Council roster would be in an advantageous position in applying for school work.

At the request of President Beck, John Cameron and Richard Tonigan, Cleve Westby, representing the Council, met with Messers William Schieck, Executive Secretary of A.I.A. and C. M. Ness of A.I.A. in Washington, January 25, 1966.

Following the conference the Council representatives submitted the following recommendations to the Board of Directors at its meeting in Atlantic City, February 12, 1966:

1. The regulation limiting consulting firm memberships to a specific number of each state be rescinded by the Board of Directors.
2. The Board of Directors adopt a new regulation to the effect that consultant firm memberships be limited for the time being to a total of five hundred with applications for such membership accepted on a "first-

come—first-served" basis, with the understanding that increases in the total number of consulting firm memberships may be made from time to time at the discretion of the Board of Directors, and

3. That the Board of Directors upon adoption of a regulation governing membership of consulting firms submit same to the Executive Board of the American Institute of Architects for review and comment before such regulation shall become effective.

Except for limiting the total number of associate memberships to 500 these recommendations were accepted by the Board of Directors of the Council and the Executive Secretary of A.I.A. informed accordingly

At its April meeting the A.I.A. Executive Board reviewed the revised regulations, and submitted several suggestions, the more important being that there should be no numerical limitation whatever on the number of architects admitted to membership, and that any architect who became a regular member on some other basis and who later did not qualify on that basis, should be permitted to retain his membership for a limited time when he would revert to an associate membership, the point being that otherwise such architect would receive preferential treatment.

The A.I.A. suggestions were considered at the Council's Board meeting at Dan Diego in May, 1966 and it was decided that for the present there would be no numerical limitation on associate memberships.

During the A.A.S.A. meeting in Atlantic City, February, 1966 a very profitable conference was held with Mr. William Corlett, Chairman of the A.I.A. Committee on School and College Architecture, who has graciously consented to serve on the program at Palo Alto this year.

Our relationships with A.I.A. have been pleasant, fruitful and bode well for the future.

ASSOCIATION OF SCHOOL BUSINESS OFFICIALS

NORMAN L. GEORGE

The Association of School Business Officials met in Atlantic City, New Jersey, October 8-13, 1966. The 1966 theme for ASBO is "Grow by Sharing."

The impact of the many federal legislative acts provided many sessions in which clarifications were assayed. The large exhibit was further evidence that federal legislation is a great impetus to possible changes in school plant housing and equipment.

The meeting was structured to give an opportunity to each business official to know the latest information in his area of responsibility and to know that not all the problems in most areas have been solved.

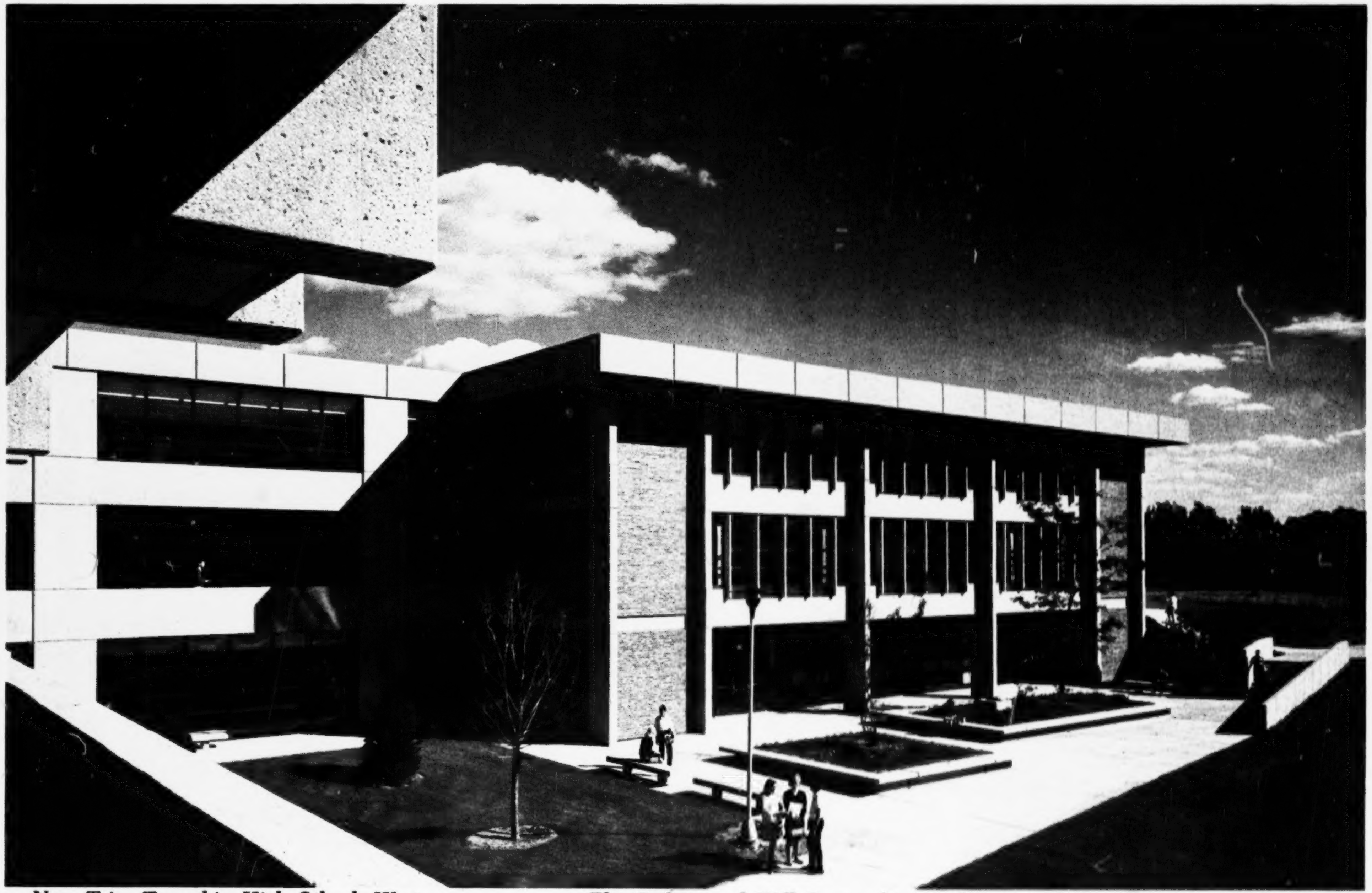
AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS, INC.

JOHN L'HOTE

Correspondence with the Society during 1965 led to an agreement as to the desirability of working together towards the formation of standards of thermal environment for educational institutions.

An outline of the procedure proposed was included in my report for that year.

No indication has yet been received as to the reaction of the Executive Committee of the Council to the proposal. Consequently, no further action has been taken.



New Trier Township High School, West *The Perkins and Will Partnership, Architects and the Architects Collaborative*

FOURTH GENERAL SESSION

A. L. Beck, President—Presiding

REPORT OF THE PUBLICATIONS COMMITTEE

DR. CARROLL MCGUFFEY,
Chairman

Fellow Members of the Council,

I am pleased to bring you this Report of the Activities of the Publications Committee and its writing sub-committees for 1965-66. This has been a very busy year. Thanks to a very hard-working and dedicated group of Council members, it has been a productive year.

Current members of the Publications Committee include Dr. Elven Duvall, Dr. Basil Hick, Mr. Thomas Gwynn, and Mr. Ben Evans. Our committee met in Atlantic City last February and we have been meeting here in Palo Alto regularly since early Sunday. Activities such as reviewing drafts of manuscripts, advance planning and maintaining contact with sub-committee activities keep us involved during the year.

Writing Sub-Committees

During the last year we have had four sub-committees working on writing assignments. These committees and their members are as follows:

1. *Maintenance and Operation Factors to be Considered in the Planning and Construction of School Buildings*
   Committee members are:
   Mr. Felix Oswalt—Cochairman
   Mr. George G. Bailey
   Miss Georgette Manla
   Mr. James L. Theodores
   Dr. Ralph N. Finchum
   Mr. Clarence P. Lefler
   Mr. John L'Hote
   Dr. Harold W. Miers
   Mr. George A. Smalling
   Mr. Lloyd W. Black, Jr.
   Dr. Ken Widdall has been serving as Chairman and will continue to work with the committee. He has done an excellent job of leading this committee.
   They worked hard this year. The members have had two working meetings during the year and they have produced a manuscript which

is nearly ready for publication. They have been meeting here and will have one more work session this fall. They will present a final draft to the Publications Committee before June 1. We expect this manuscript to be published by late 1967.

2. Revision of the bulletin on *Planning School Plants for Secondary Schools*
   Committee members are:
   Dr. W. O. Wilson, Chairman
   Mr. George Reida
   Dr. Dwayne Gardner
   Dr. Harold Cramer
   Dr. O. Paul Roaden
   Dr. J. L. Pierce
   Dr. Dave Hutcheson

   These committee members also have been busy. They had one meeting during the year and have produced sixteen of a twenty-chapter document. They expect to complete the manuscript by mid-December. We expect to have it ready for publication in 1967 also.
3. *Planning Faciilties for Higher Education*
   Committee members are:
   Dr. William Fuller, Chairman
   Dr. Ross Neagley
   Dr. Victor Randolph
   Dr. Donald Walling
   Dr. Richard De Remmer
   Dr. Fred Schwehr

   This committee met in Atlantic City this year and has been meeting here. No date has been established for the completion of the manuscript.
4. *Planning Facilities for Vocational and Technical Education*
   Committee members are:
   Dr. William Chase, Chairman
   Mr. Wayne Betts
   Mr. Lester J. Welch
   Dr. Vernon Wyland
   Dr. Harold Silverthorne
   Dr. Robert Hull

   This committee is expected to become quite active this year. This is a publication which is urgently needed, and we want to push this one to an early completion.

Revision of the Guide

We believe we are off to an excellent start for the revision of the Council's *Guide*. We want to express our sincere appreciation to you, the membership, for your excellent cooperation in the "Brainstorming Session." Participation appeared to be outstanding. Your comments submitted by the recorders are most helpful. These comments and suggestions as reported to us will be summarized in the *Proceedings.*

The President has appointed the chairman of the Re-write subcommittee. He is Dr. Kent Stewart of the Montgomery County School District of Maryland. Other members will be appointed during the year and announced in the "Newsletter." We expect that this sub-committee will begin preliminary work this year and have at least one meeting before the annual meeting next October. The target date for publication is 1969.

Publications Sales

The Executive Secretary will report the finances related to the sale of publications. We would like to report that during the last fiscal year, 1044 copies of the *Guide* were sold. We had on hand July 1, 908 copies. Our Committee is recommending another printing of 3000 copies. The bulletin on *Thirteen Principles of Economy* continues to sell. Our inventory dropped to 39 as of June 30, 1966. The *Elementary Planning* bulletin is out of print and we shall plan for a revision of this bulletin soon. The sales for the bulletin on *Planning Facilities for Higher Education* continues to lag with 94 copies sold during last year. We hope you will give this bulletin a push. Let's sell the copies we have on hand.

We would like to take this opportunity to thank the membership for their continued cooperation. We appreciate the completion of the "Interest Questionnaires." We will be calling on you from time to time for assistance.

We would also like to express our appreciation to the Board of Directors for its support and encouragement during the past year. Their assistance and yours make a difficult job much easier. Thank you.

Respectfully submitted:
C. W. McGuffey, Chairman
Elven Duvall
Basil Hick
Thomas Gwynn
Ben Evans

PROFESSIONAL ACTIVITIES COMMITTEE

DR. M. TED DIXON,
Chairman

The Professional Activities Committee has had a busy year. The major project of course has been the membership campaign which was started in Lincoln last year. Under the supervision of the Professional Activities Committee, whose members will be introduced later on, we organized a group representative of each state and province throughout the States and Canada. So you see we have a committee of about 62 people. It is one of the most interesting groups with whom I've ever worked. They've been cooperative, courteous, vigorous and helpful in every way. They've really produced for you, the Council, this past year.

As we convened in 1965 in Lincoln, Council membership numbered 384 individuals and no firms. Today membership includes 512 individuals and 195 firms. Firm memberships have been established in 41 states and providences and I think we're in 95% of the states and providences as far as individual memberships are concerned. There are 22 states and providences that reached or exceeded what was considered to be a minimum goal for the firm memberships. You may recall, that we established a minimum goal; for each state. The matter of state quotas had to be clarified with the American Institute of Architects. But, we established goals which were accepted by the Board, calling for each state and providence to have not less than two firm members as a base. Beyond that we would permit an additional member for each million in population or portion thereof. This gave us the basis of geographical representation, the primary goal. The Committee encountered some problems directly following the Lincoln meeting, but they were resolved with the American Institute of Architects which was concerned about the ceilings established for the states and providences. A.I.A. requested that some adjustment be made so that architectural firms throughout the nation might have an opportunity to apply for and be considered for membership to avoid the impression of an exclusive arrangement. Following meetings of representatives of the Executive Committee and Professional Activities Committee the matter was resolved to the satisfaction of architectural firms.

I would like to introduce the members of the Professional Activities Committee: Don Bush, Central Michigan; Henry Rissetto, Columbia; William Morton, Washington; Jim Thrasher, new director of a regional project in Denver, Jim was former Dean of the School of Education at the University of Montana. The next groups I would like to introduce by group are members of the State and Providence Membership Committee. Membership chairmen from Canada, please stand. Fellows from the States, please stand.

The Professional Activities Committee has a second project which has been completed. We sponsored a breakfast Sunday, February 13 at 8:00 a.m., and I must say that everyone invited attended. Invitations were extended to the Executive Secretary of the Department of Audio Visual Instruction, Higher Education; the Department of Elementary School Principals; the American Society of Curriculum Development; the Association of School Business Officials and representatives from the Department of Rural Education and the National Association of Secondary School Principals. We were joined by members of the Board of Directors and other members of the Professional Activities Committee. We had one thing in mind—to see if we could encourage better cooperation and more communication between the members of the National Council and members of other professional educational organizations. During this session we discussed the following seven points.

1. How can the efforts of the National Council and instructional associations be combined to improve the effectiveness of school plants?
2. To what extent do national programs now include discussion sessions on planning school facilities?
3. To what extent do instructional associations participate in activities leading to the development of educational specifications for new buildings?
4. How can the National Council be of assistance by providing consultants or resource personnel to assist at annual conferences?
5. Are instructional associations aware of the publications of the National Council? Are they being used?
6. To what extent are publications of instructional associations available for use by school planning personnel?

Then we had a big open-ended session on other matters of mutual interest and got into all sorts of things. The representatives of the associations were also informed that NCSC members would respond to requests to assist with conferences during the coming year and in the future at the local, state, regional or national basis.

As a result of that conference there have been other contacts with the associations. An invitation was accepted by your chairman to serve as a group leader at the ASCD Conference in San Francisco. I conclude from that stimulating experience in having that opportunity to meet with the folks that they are organized and they are moving ahead and they are talking about some of the same things that we are although they're doing it from a little different perspective. I do think that you as members of the Council ought to be getting involved more and more with these instructional associations. They need this kind of help and we need to sit and listen and participate with them.

The second item that Past President, Francis Darby and I were invited and attended was the national association meeting of the Department of Audio Visual Education at San Diego. Here again we met with the group that has been organized for some time and operating efficiently and well and they are pushing some horizons in this field. But again, it was kind of a mutual feeling of satisfaction to sit down and talk about the activities of the Council and some of the things that are in process and hear about some of their ideas, which again reinforce this thought that we ought to be communicating more so than we seem to be doing or have done in the past.

You fellows are familiar with architectural firms that ought to be in NCSC and your're familiar with individuals that ought to be members of the National Council. We ask that you do four things:

1. Would you list the names of two architectural firms that you believe would benefit from becoming associated with the Council and

with whom the council would benefit through association. Most of you know the people who are doing the school work and who would be interested in this kind of activity.

2. Two individuals.
3. Enter the state or providence where you are located, so I can funnel it back to the proper chairman.
4. Enter your name as the person submitting the note to the Committee, in case your state chairman would like to get in touch with you when he goes back home or perhaps tomorrow before the meeting is over. If you are not familiar with your state or providence membership chairman, would you please become acquainted with him.

"Ken, I was going to ask if we might publish again the list and distribute it to all members. There will be some changes I'm sure."

I would like to add my appreciation to the members of the Professional Activities Committee, the state chairmen, our Executive Secretary, Ken, who has been in the saddle here and has been very helpful. You have had communications from him. He has been very supportive to the whole activity and we're looking ahead for good things. "Thanks" too, to the Board of Directors for their support this past year.

RESEARCH COMMITTEE

DR. WALLACE H. STREVELL,
Chairman

The Research Committee is comprised of Bill Chase, Art Wohlers, Bill Wilson and Basil Castaldi. The previous reports have rather subtly mentioned the amount of involvement that has been generated and so I feel that mention should be made that 30 persons here in this group also are abstractors. Their names are listed in the issues of the Abstract Journal and I'm sure that in due course they too will receive their recognition. This brief report was put together by a committee for presentation.

During the past year the Research Committee has continued its role of encouraging and assisting research in the school plant field. The committee has had two meetings during the year, in Atlantic City in February and Palo Alto this week. Much committee energy this year has been devoted to proposal writing.

On the basis of a small grant received from the U. S. Office of Education, an NCSC Abstract Service was started in September, 1965 under sponsorship of the Research Committee. Thirty-three members of the National Council were invited and accepted the role of volunteer abstractors.

This group held a breakfast meeting in Lincoln (1965) and again in Palo Alto (1966). A managing editor appointed for the project has maintained constant communication with the abstractors and processed the resumes submitted.

The abstract service project was undertaken in cooperation with and as a service to the Education Research Information Center (USOE). The ultimate purpose of ERIC is to provide a clearinghouse of educational information storage and retrieval for the total area of education. The NCSC Abstract Service therefore was a pilot study. It was limited to school facilities research, or research related materials, and to documents normally unpublished or of relatively low circulation. The project goal was 1,000 carefully screened documents and edited resumes. By September, 1966 this goal was completed and the project made available to USOE according to contract schedule.

A by-product of the NCSC Abstract Service that has been of particular interest to National Council membership is the Abstract Journal. The first two issues have been published and mailed; the third issue is being printed. The Board of Directors has authorized this publication to be continued next year and four more issues produced. This is readily possible with the large amount of material already collected plus the further contributions of the abstractors.

Actually we have benefited greatly from experience with this new undertaking. The Research Committee has learned how and where to locate and obtain school plant research materials. We have demonstrated that there is no substitute for the experience and skills of school plant specialists as represented in the National Council when it comes to evaluating available research materials and communicating their essential content.

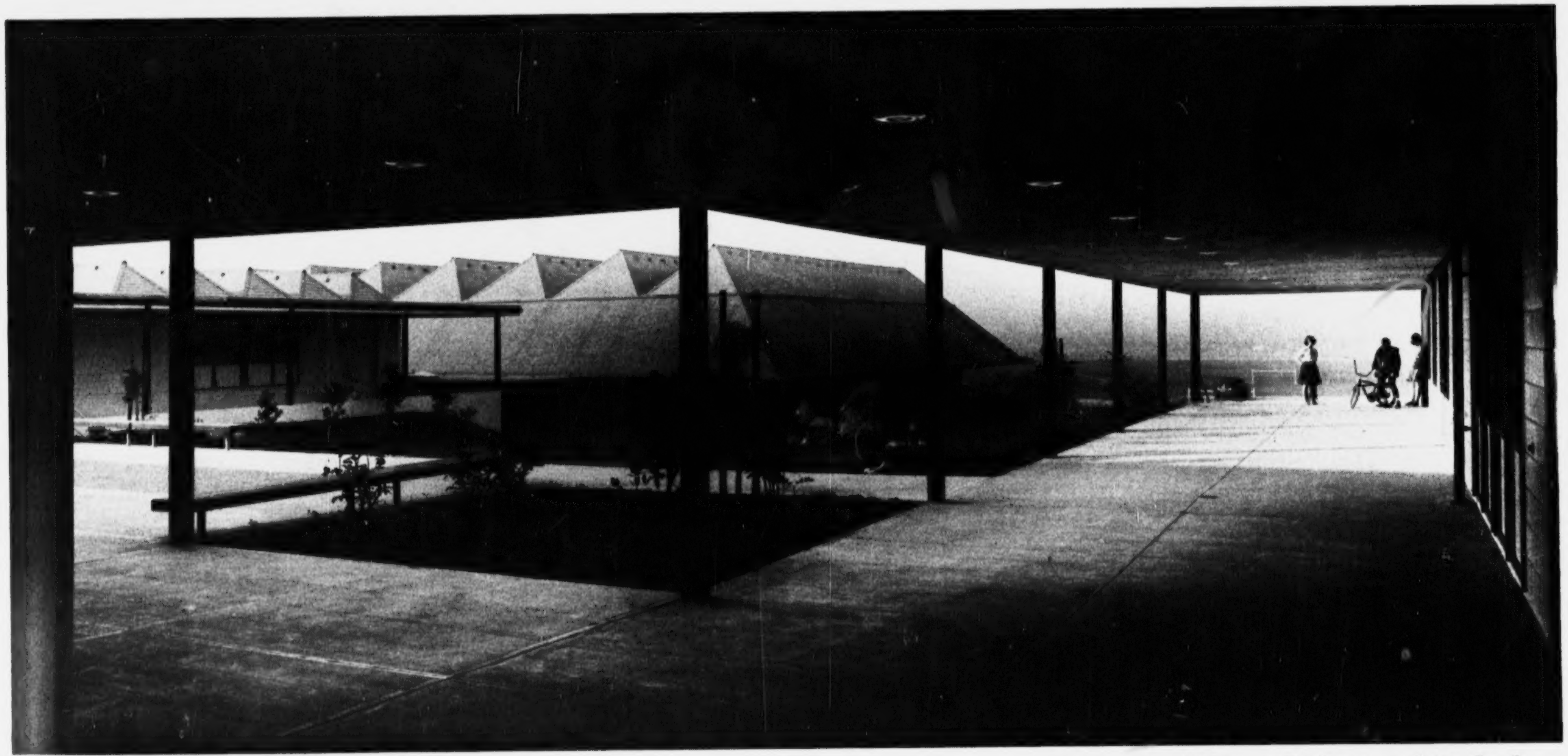
Meanwhile the U. S. Office of Education has projected more extensive plans for establishing national information clearinghouses in the school plant field. The Research Committee prepared and submitted a strong and practical proposal for a "School Facilities Information Clearinghouse." This was endorsed by the NCSC Board of Directors. The proposal was to establish the office of Executive Secretary as Clearinghouse Coordinator to make contacts and handle inquiries and to continue the now experienced Abstract Service as the technical arm of the clearinghouse. While the U. S. Office of Education did not fund a national clearinghouse for school facilities last year, the Research Committee is encouraged to resubmit the proposal this year. Firm justification from the National Council will be necessary to secure an allocation of funds for the school facilities field.

The Research Committee has also prepared plans and a proposal for a research developmental seminar. The purpose will be to stimulate and assist research planning as a step toward promoting basic research. The proposal has been submitted to USOE by the Ohio State University.

The Research Committee has at present the following additional concerns: (1) to encourage National Council membership to submit research papers at the annual meetings; (2) to have the "Newsletter" feature research articles, tending to make it more of a technical journal in the field;

(3) to promote the concept of a National School Facilities Laboratory as a primary agency of the National Council; and, (4) to foster a program of basic research in the school plant field by assisting to identify needed research and relate it to practical purposes such as National Council publications.

Research Committee
Wallace H. Strevell, Chairman
William W. Chase
Arthur E. Wohlers
William O. Wilson
Basil Castaldi



John F. Kennedy Junior High School

Wilmsen Endicott and Unthank

NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION ANNUAL FINANCIAL REPORT

CASH RECEIPTS AND DISBURSEMENTS

September 1, 1965 to June 30, 1966

Cash in Bank—September 1, 1965		$ 4,017.77
Cash on Deposit—University Account 31-3881		58.67
RECEIPTS:		
Members Dues	$20,262.75	
Sales of Publications	7,032.84	
Exhibit Entry Fees	775.00	
E.F.L. Reimbursement	42.04	
Total Receipts		28,112.63
		$32,189.07
DISBURSEMENTS:		
Board of Directors and Committee Expense	$ 3,301.64	
Convention Expense	129.70	
Exhibit Expense	888.68	
UNESCO Expense	584.95	
Printing Proceedings	2,183.80	
Printing—Other	464.56	
Newsletter	291.92	
Refunds on Publications	180.00	
Office Secretary	3,700.36	
Office Supplies, Postage, etc.	990.56	
Supplies and Services	492.69	
Legal Fees	25.00	
Discounts on Canadian Checks	80.78	
Miscellaneous	84.25	
Transfers to Savings Account	14,600.00	
Total Disbursements		27,998.89
Cash Balance, June 30, 1966		$ 4,190.18

REPRESENTED BY

First National Bank of East Lansing	$ 5,176.33	
Less—Outstanding Checks	3,145.69	
Net Book Balance		$ 2,030.64
University Account #31-3881		2,159.54
As Above		$ 4,190.18

SAVINGS ACCOUNT

Balance, September 1, 1965 *Note:* This includes $25.26 interest not credited to Account Book	$ 5,314.13
Deposits from Checking Account	14,600.00
Interest Credited to Account—180.06 *Less* 25.26 above	154.80
	$20,068.93
Interest earned to June 30th—not credited to Account Book	168.02
Balance, June 30, 1966	$20,236.95

STATEMENT OF FINANCIAL CONDITION

June 30, 1966

CASH FUNDS:

Checking Account, First National Bank, E. Lansing	$ 2,030.64	
Michigan State University Account —#31-3881	2,159.54	
Savings Account, First National National Bank, E. Lansing	20,236.95	
Total Cash Funds		$24,427.13

ACCOUNTS RECEIVABLE—

(Schedule A)

Sales of Publications	$ 1,608.00	
Membership Dues	1,120.00	
		$ 2,728.00

PUBLICATIONS INVENTORY:					
Guide for Planning School Plants	908	@	$6.00	$ 5,448.00	
Guide for Planning School Plants	7	@	3.00	21.00	
Thirteen Principles of Economy	39	@	1.00	39.00	
Planning Facilities for Higher Education	1,721	@	1.50	2,581.50	
Proceedings	440	@	2.50	1,100.00	
American Stand. Lighting Guide	13	@	.50	6.50	
Total at Retail Price					$ 9,196.00
Total Resources					$36,351.13

ACCOUNTS RECEIVABLE

June 30, 1966

SALES OF PUBLICATIONS:					
Guide for Planning School Plants					
1964 Edition	249	@	$6.00	$ 1,494.00	
1958 Edition	2	@	3.00	6.00	
Thirteen Principles of Economy	8	@	1.00	8.00	
Elementary School Plant Planning	14	@	1.00	14.00	
Secondary School Plant Planning	6	@	1.00	6.00	
Planning Facilities for Higher Education	5	@	1.50	7.50	
Proceedings	29	@	2.50	72.50	
Total Publications Receivable					$ 1,608.00
MEMBERSHIP DUES:					
Total Dues Receivable					$ 1,120.00
Total Accounts Receivable					$ 2,728.00

PUBLICATIONS SUMMARY

	Inventory Aug. 31, 1965	Copies Sold	Copies Free	Inventory June 30, 1966
Guide for Planning School Plants				
1964 Edition	2,120	1,044	299	908
1958 Edition	8	3	0	7
Thirteen Principles of Economy	168	105	5	39
Elementary School Plant Planning	13	12	1	1
Planning Faciilties for Higher Education	1,835	94	11	1,721
Proceedings—1962	87	15	3	73
Proceedings—1963	73	21	4	49
Proceedings—1964	218	27	133	72
Proceedings—1965 Printed 1018	—	49	709	246
American Standard Lighting Guide	28	14	—	13

REPORT OF AUDITING COMMITTEE

JOHN L'HOTE,
Chairman

The Auditing Committee met in East Lansing on July 18 with the Secretary-Treasurer, and R. W. Zimmerman, Certified Public Accountant. As recommended by the 1965 Auditing Committee a professional audit had been completed as of the end of the 1965-1966 Fiscal Year, June 30, 1966. The audit was reviewed by the Committee and is recommended for approval. The recommendations of the auditor for the improvement of the financial record keeping of the Council are as follows:

1. That a chart of accounts be prepared to classify assets, liabilities, income and expenses. And that a general ledger be maintained with a double entry system of accounting.
2. That columnar journals be used for cash receipts and checks dispursed, also for sales records and membership dues, using various columns for classifications desired and posting therefrom to the general ledger each month. This would furnish controls to check with detailed records now being maintained for publications and dues.
3. That a separate stock record of publications be maintained to record all copies sold, given gratis or returned and that this be checked with periodical physical inventory.
4. That a decision be reached whether to keep the books on a cash basis, as of present, or on an accrual basis.

These recommendations have been passed on to the Executive-Secretary for implementation.

Respectfully,
C. Robert Muth
John L'Hote

I move acceptance of the report of the Auditing Committee.

Motion seconded; motion carried.

SECRETARY'S ANNUAL REPORT

DR. FLOYD G. PARKER,
Secretary-Treasurer

For the past three years I have looked forward to the day when the secretarial responsibilities of the Council would be placed in the hands of a full-time, salaried Executive Secretary. Today, we are privileged to have realized that objective.

In view of the fact that Dr. Widdall has occupied this position for a brief period, we have agreed that I should assume the initial responsibility for the Secretary's Report for the 1966 Annual Meeting.

In 1960, when I became Secretary-Treasurer of the Council I began to hear discussions regarding the expansion of Council activities. Since that time many fine things have happened to this organization. Formal action for reorganization was initially implemented by the late Dr. Merle Stoneman when he designated what we called the "Future Activities Committee." This committee, appointed in 1963, consisted of Arnold Tjomsland, chairman; Tony Adinolfi, John Cameron, Robert Hull, Lester Hunt, Don Leu, Mac McClurkin, Tommy Naylor, Jim Schooler, Harvey Self, and Lester Welch; with Francis Darby, Merle Stoneman and myself as ex-officio members. This committee faced the task of trying to determine just what an organization with a membership of approximately 250 school plant planners in the United States and Canada should be doing in the future as an organization. It was determined very early that the standing committees—the Research Committee, the Publications Committee, and the Professional Activities Committee should work together on the task of developing a common goal for the future.

Early in 1965, President Francis Darby obtained a $15,000 Planning Grant from the Ford Foundation. Under the leadership of President Darby a series of planning meetings were scheduled during the spring and summer of 1965 which involved not only the Future Activities Committee members, but also all standing committee members. During that period, proceedings for incorporation as an educational non-profit organization, and for tax exemption were instituted. A membership drive was planned and the Professional Activities Committee, under the chairmanship of Ted Dixon, with members including Henry Rissetto, William Prentice, Don Bush, and William Morton, was given the responsibility by the Board of Directors to plan the drive, to establish a plan of action, determine goals and devise a system to attain those goals. At that time the Council had a total membership of approximately 250. The Professional Activities Committee set goals of 750 to 800 individual members and 250 firm memberships by October, 1966. At the several planning sessions it was decided by the entire group that the Council would move to obtain all of the grants possible, including a major grant for a National Educational Facilities Planning Laboratory. A plan was developed to request funds for the Abstracting Service delegated to the Research Committee under the chairmanship of Wallace Strevell. Committee members were Art Wohlers, Basil Castaldi, Bill Wilson, and William Chase.

The Council was officially incorporated as an educational non-profit organization in the State of Michigan on September 15, 1965. As a result of that official action a tentative budget was prepared for the next two years. As a result of the corporation proceedings and the legal requirements required by the Internal Revenue Service for tax exemption, the By-Laws of the Council were revised at the 1965 Annual Meeting, in Lincoln, Nebraska. Additional action included establishing the fiscal year from July 1 to June 30, and increasing the individual membership dues to $20.00 annually, beginning July 1, 1966. The By-Laws revision also provided for an expansion of the individual membership to include anyone in education involved in any phase of planning. For the first time this action permitted the superintendent, principal, assistant superintendent, and others involved in various planning activities at the local, state and federal levels to become individual members of the Council. Perhaps the most important activity of the Council reflected in the Bylaws change was the inclusion of a consulting firm membership for architects, engineers and planning organizations. As a result, the Professional Activities Committee was given the responsibility for designating state and province membership chairmen, and to develop state and province quotas for membership.

The Publications Committee, consisting of Carroll McGuffey, chairman, Ben Evans, Elvin Duvall, Basil Hick, and Thomas Gwynn, reported good progress at the Lincoln Meeting in terms of moving toward new publications. In February 1966, the Board of Directors, consisting of President A. L. Beck, President-elect John Cameron, Floyd Parker, Secretary-Treasurer, Robert Guild, Frank Irwin, Richard Tonigan and Francis Darby, interviewed candidates for the position of Executive Secretary. Candidates were screened from many applications received by the Board. At the Atlantic City Meeting, in February, the Board of Directors eliminated the policy of state quotas for firm members, thus permitting all architectural firms to become members, subject to screening by the Board of Directors of the Council. I should also mention that the Council attained tax exempt status in December, 1965, subject of course, to annual review. Also at the February meeting, Merle Stoneman and Dick Tonigan were authorized to write a prospectus, under Title IV, for a National Educational Facilities Planning Laboratory for the Council. That prospectus has been reviewed by the U. S. Office of Education and we have been informed that sufficient funds are not available during the present fiscal year for such a project. The Research Committee, under the chairmanship of Wallace Strevell, submitted a prospectus for an Abstract Service to the U. S. Office of Education last January and a small grant has been received for that service. A request for supplemental funds has been submitted for further funding of the Abstract Service.

A special committee, of Cleve Westby, chairman, and Charles Wells, Lester Welch, and Harold Cramer, has been designated to work jointly with the American Institute of Architects on the development of educational specifications, standards and criteria. Other sub-committee assignments by the Publications Committee and the Research Committee will be reported to you by the chairman of the respective committees at this Annual Meeting. For the first time in the history of the Council an exhibit booth was leased at the 1966 American Association of School Administrators Convention in Atlantic City. This activity will be continued in an effort to give greater exposure to the activities of the Council.

The Board of Directors met in Washington, D.C. early in the spring and at that time interviewed additional candidates for the position of executive secretary. After considered deliberation, Dr. Widdall was elected to the position. The Board determined that the headquarters shall remain temporarily in East Lansing, until such time that a permanent site is selected. The headquarters office is now located in Room 317 Manly Miles Building on the Michigan State University Campus. It is a very fine, air-conditioned facility, with conference space and excellent parking facilities available.

The financial status of the Council is currently stable. However, if plans now under way are carried out, grants and other income must be forthcoming. This presents a tremendous challenge to our new Executive Secretary, Dr. Widdall, to the Board of Directors, and to the various standing committees and ad hoc committees.

I would like to say, at this time, that you have a very hard working and sincere Board of Directors. They have the concerns of the Council at heart. The past year has shown that they are aggressive and not afraid to act. As you know, major changes are taking place in the Council and I am sure that we can look forward to many more, providing the leadership continues to exist on your Board. Past President Francis Darby and President Al Beck have given tremendous leadership to this organization and deserve our sincere appreciation and continued cooperation.

I have tremendously enjoyed my experiences with the National Council during the past six years. My position, in the past, at Michigan State University has given me the opportunity to volunteer my services as Secretary-Treasurer of the Council. As I have indicated to you during the past two years, it was impossible for the Council to continue with this kind of voluntary arrangement. The Council is indebted to Michigan State University for providing a graduate assistant for me each of the past four years. Dr. Herbert Sheathelm and Dr. Ted Drake, both of whom are on the staff of the University of Connecticut, and Karl DuBois, now on the staff of Delta Community College in Michigan, should be given the major credit for the continued development of the Newsletter, for the editing and publishing of the *Annual Proceedings,* and for carrying out major office assignments of the Council. Our office space, equipment, and many services have been provided by the College of Education, Michigan State University —all without cost to the Council—and we recognize that these benefits have materially assisted the Council in our efforts to move forward.

I want to assure you that I will continue to work for the Council, but I am most pleased to turn the reins of the secretary-treasurer activities over to Dr. Widdall. It has been a smooth transfer of responsibilities.

Again, I think of the Council as being one of the most forward-looking, one of the most potentially aggressive organizations on the educational front today. We have many things to accomplish and we must concentrate our efforts to get the job done. In memory of our good friend, the late Merle Stoneman, who first conceived the idea of the Committee of the future, let's get the job done!

EXECUTIVE SECRETARY'S REPORT

DR. KENNETH R. WIDDALL,

Executive Secretary

While I am aware of the fact that many eyes are on me today, I hope you are aware of the fact that you have just received testimony that approaches something that I consider a near miracle. To have accomplished everything that Floyd Parker has accomplished during recent years on a part-time, voluntary basis is a most unusual achievement. The Council has much for which to be greatful in the service that he has rendered.

I would like to publicly express my appreciation for the tremendous assistance that Floyd has given to me and my family. He and his good wife, Marion, have been most gracious and accommodating in making us feel welcome and assisting us on many occasions.

He has also assisted me in adjusting to the job by providing background material, advice and guidance whenever requested. We have a very good working relationship; there is no problem, no difficulty whatever. It has been a very stimulating and pleasant experience.

There is nothing unusual about your new Executive Secretary except that I think I am probably the most fortunate person in this entire gathering; fortunate in that I have been given the recognition and distinction by being so honored. I consider it the greatest of my career.

I am not at all unmindful of the responsibility and challenge associated with this position. I am appreciative too of the fact that it represents a tremendous wealth of experience, talent, preparation—people who have within their grasp, and within their purview of responsibilities the contributions to education that are almost unparalleled in the country, if not in the world. This is something you think about very carefully when you consider the broader aspects. This is undoubtedly the greatest challenge I have ever faced, and I am very happy to be able to share this challenge with each of you. That is the way I would like to have you accept it, and I hope you will view it in that light as well.

Of course, with a position of this nature there is a lot of hard work. Mac and Floyd could tell me a great deal about it; perhaps it's well they they haven't told me everything. There is a lot of hard work associated with it and I expect to work hard at it. It is something that will not be accomplished in a very short period; it's going to take a long time. There are tremendous things that can be done, there are many, many things that need to be done, and there are many that must be done. Together, we can do many of them. Many projects will take years to develop and many more years before we can appreciate the fruits of our labor. But the challenges are there; they are ever increasing. Pressures are becoming greater and greater every day and it takes many broad shoulders to accept them.

I know I express my view and I'm certain I express the Board's view when I convey to you the idea that the strength of this organization, indeed, the future of this organization, with all its implications, rests not with the Executive Secretary, not with any Director or the entire Board of Directors, nor with any of our many committees; the strength, the future of the National Council on Schoolhouse Construction rests with each member. We are as strong as you are. Our success will be measured by your success. Therefore, I very humbly appear before you requesting your assistance.

I want to be successful as Executive Secretary, but I know that I can only be as successful as you permit me. You will make my job a success and I know that your assistance will be forth-coming. I must say that the reception and hospitality extended to me has been very heartwarming; I sincerely appreciate it.

There appears very little I can tell you now after Floyd's very comprehensive report of what has been done, but perhaps I should speak very briefly to some of the things we will be working on and giving more and more attention to in the future. I want to show you visible evidence, some of the results of hours and hours, if not years, of work.

The first one I refer to is the project which Dr. Strevell and the Research Committee have been working on these past years. This is the Clearinghouse—The Educational Facilities Information Clearinghouse Proposal. It has been submitted to Washington, as Wallace has mentioned. We have not received the decision we hoped to receive; however, we have not given up, not by a long shot. We are going back. We have been to Washington to discuss the status of our proposal and just two nights ago, acting at the direction of the Board of Directors, I sent a night letter to Commissioner Howe. I would like to read it to you to make you fully aware of the position of the Board of Directors and the National Council on this matter.

> Dear Commissioner Howe:
> At the request of the Board of Directors meeting in official session at the 43rd Annual Meeting of the National Council on Schoolhouse Construction, Palo Alto, California, the following resolution is respectfully brought to your attention:
>
> > The National Council on Schoolhouse Construction is the only major organization totally devoted to planning educational facilities and study of the effect of physical environment on learning, reiterates its position that there exists a national demand and need for an information clearinghouse specializing in school plants. Economy to taxpayers in establishing an Information Clearinghouse that will promote both functional and economically operable facilities would justify action on this ever increasing problem. The National Council on Schoolhouse Construction officially and through the abundant human resources of its professional membership is prepared to sponsor and conduct the basic operations of such a national clearinghouse.
> >
> > Respectfully submitted,
> > Kenneth R. Widdall, Executive Secretary

We are still in pursuit of the clearinghouse project and anything you can do individually or collectively will be greatly appreciated.

As you know, Dick Tonigan and Merle Stoneman some time ago worked very hard to develop a prospectus for a National Educational Facilities Planning Laboratory. That too was submitted to the U. S. Office of Education, and again, as Floyd mentioned, the unavailability of funds prohibited the U. S. Office from reacting in the manner we would have liked. We are still pursuing it—quite actively pursuing it. I have spent a great deal of time working with Dick on this.

Last Friday, we submitted to Commissioner Howe an application for a Developmental Concept Study for a National Education Facility Planning Center. We have talked with the people in Washington and we are acting on some advice and insight given us. We were told in very plain terms that had there been no other requests before them at the time and had everyone been right in our corner, and had they assigned A-1 priority to our projct, we would have accomplished nothing more than we have accomplished to date simply because there were no funds available. However, we are going back. This Developmental Concept Study application is right on the heels of our original prospectus; it is something approaching $54,000. We would hope to complete the project in approximately six months and will be pursuing this quite actively in the next few weeks.

Just this morning I was in contact with the Department of the Army in the Pentagon, trying to get the latest word on one of our recent applications. This one is entitled, "Survey of State Practices in School Construction." It has to do with the fallout shelter program. We have been requested by the Office of Civil Defense to conduct a survey of state construction practices. We have submitted an application to conduct the survey with a budget and schedule; we are awaiting their decision. This would be Phase I. Upon completion of this there would be a follow-up or Phase II which would be an evaluation, conclusions and recommendations based on information gathered in Phase I. The information we seek does not now exist in any single compiled form. It constitutes a tremendous opportunity for the National Council to render service both to the field of education and to the nation as a whole.

There is also the possibility, although we have not really investigated all of the aspects and ramifications of it at this time, of NCSC conducting architectural competition.

There are many other things in process and, of course, one of them that has kept me busy during recent weeks is that of firmly establishing the National Headquarters. As you know we have moved out of the education facilities on campus and now are quartered in another building. When we moved we begged and borrowed furniture. We had some on loan but of course, when the University began fall sessions they felt they would like to have some of their furniture returned, so we had to make other provisions. We're gradually setting up the office and it's coming along very well.

One of the assignments I have been given is that of identifying and approaching foundations and other sources of financial support in the form of grants, gifts, or whatever. This is something that will take considerable time to develop. One needs to be very discerning, sophisticated and professional. This will come in time, but it will take a good bit of doing. Again, anything that you can do will be appreciated. If you know a good source, we would like to know of it. If you have any good contacts, I hope you will feel free to cultivate them; keep us advised of your progress. We will assist in any way we can.

The development, the broadening of our liaison with other professional associations is another area where much effort must be expended. We have liaison with many organizations at present, but liaison must be increased if the full impact of the Council is to be realized. We wish to capitalize on the available talent and contacts to fully assume our responsibility to the school planning field across the country and throughout the world.

The assistance that I can give Ted Dixon in membership is quite limited because he has done quite an outstanding job in the campaign. The invitations, acceptances, processing—the work that is being done by the many state chairmen has been most rewarding. Recently, I sent a letter out to all state chairmen congratulating many and perhaps extending not quite such warm congratulations to some others because we haven't done as much as we should have in some areas. I hope each of you will take advantage of the invitation extended by Ted to list the names of individuals and firms who would benefit through membership in the National Council. Get the information back to him and the state chairman will have the material with which to work. This is a very very important aspect of our whole developmental program.

The rest of my time is given to the pursuit of any other assignment the Board cares to make. I have spent many hours developing a budget. I might add that I've worked on budgets of millions of dollars with much greater ease than I've experienced with this one, but it will come along.

I want to join Floyd in conveying to you this fact, should there be any doubt. You have a wonderful group of men serving you on the Board of Directors. It is a very unusual group and I am proud and pleased to work with them. I will do everything I can to assist them and you in pursuing our common goals.

REPORT OF THE RESOLUTIONS COMMITTEE

DR. HAROLD E. BOLES,
Chairman

The Council membership at its Forty-Third Meeting reaffirms its belief in the basic purposes of the Council as reported in the Articles of Incorporation and the 1965 Report of the Resolutions Committee.

The Council reiterates its earnest hope that the U. S. Commissioner of Education will give serious consideration to the reestablishment of the School Housing section of the U. S. Office of Education to the end that this agency will assume again its important role of leadership and the provision of services in the school plant planning field.

The Council recognizes the magnificent services rendered by Dr. Floyd G. Parker in his six years as Secretary-Treasurer of the Council, and acknowledges that many of the accomplishments of the Council during this period were due to his continued leadership, vision, persistence, and more-than-called-for effort.

The Council thanks Michigan State University for providing to it the services of Dr. Floyd G. Parker and numerous able graduate assistants, as well as "temporary" facilities for housing Council headquarters.

The Council commends President A. L. Beck and the Board of Directors for their diligent efforts including those of securing the full-time services of an Executive Secretary and urges that full support and assistance be given to Dr. Kenneth R. Widdall as he undertakes the arduous and demanding obligations of this position.

The Council commends all of the committees and all of the members of them for their zeal and contributions during the past year and recognizes the necessity and importance of finding and developing the financial support essential to the success of all working committees.

The Council commends the work of the Abstract Service for an excellent first year of effort and recognizes that, as chairman of the Research Committee of the Council, Dr. Wallace H. Strevell was deeply involved in establishing the program, ably assisted by Mrs. Pauline Oliver, Managing Editor of the Abstract Service. Thanks are also expressed to the University of Houston for its participation as co-sponsor of this significant project. In light of the excellent start made during the inception year, it is urged that the Abstract Service be continued and given the full support of all Council members.

The Council wishes to commend the membership chairmen for a job well done during the past year and urges that they continue with the same vigor during the next year. It is recognized that the opening of new categories of membership imposes obligations on the Council to provide services and programs that are both interesting and beneficial to all members.

The Council commends John Myer, Neal Casey, Clark Schiller, and members of the "School of the Month" Committee for the excellent selection and display of the Second Annual School Building Architectural Exhibit. The interest shown by the membership indicates the importance of continuing this feature of the Annual Meeting of the Council.

The Council wishes to extend to the following school districts its appreciation for making their excellent plant facilities available for visitation by the membership:

Chabot Community College District
Palo Alto Unified School District
Fremond Union High School District

Mountain View Elementary School District
Oak Grove Elementary School District

Particular thanks are due the personnel who gave so generously of their time to conduct the tours.

The Council notes with regret and profound sorrow the loss of Shirley Cooper, Associate Secretary of the American Association of School Administrators, Washington, D.C.; Donald L. Essex, former Director, Division of School Buildings, State Department of Education, Albany, N.Y.; D.G.W. McRae, Supervisor of School Plant Approvals, Ontario Department of Education, Toronto, Ontario; Albert Monette, Director, Department of Construction, Montreal Catholic School Commission, Montreal, Quebec; John J. McNicholas, Assistant Professor of Education, Michigan State University, East Lansing, Michigan; Merle A. Stoneman, Professor of Educational Administration, University of Nebraska, Lincoln, Nebraska, and Past President of the Council; and George E. Wade, District Engineer, Fresno City Unified School District, Fresno, California.

The Council members and their wives express sincere thanks to the Local Arrangements committee, composed of:

Dr. and Mrs. Don Davis, Chairmen
Mr. and Mrs. Pat Felise
Dr. and Mrs. Charles Gibson
Mr. and Mrs. Stacey Hertsche
Mr. and Mrs. Harvey H. Ferris
Dr. and Mrs. James D. McConnell
Mr. and Mrs. Wilbert Vestnys
Dr. and Mrs. John Boice
Mr. and Mrs. A. L. Beck, ex officio,

who provided the exotic facilities and stimulating tours for this meeting of the largest Council membership to date. Special recognition is given for the highly successful reception for new members and wives, and for the other special activities for the ladies.

The Resolutions Committee urges that the Board of Directors give formal expression of thanks on behalf of the Council to all persons and organizations mentioned in this report.

Respectfully submitted,
Harold W. Boles, Chairman
Cleve O. Westby
W. Powers McElveen
David W. Hutcheson, in absentia
Hughes L. Jacobs, in absentia

It was moved by Boles, seconded by T. Naylor and unanimously carried that the report of the resolutions be accepted as read.

BUSINESS SESSION

A. L. BECK

Review of Proposed Changes in the By-Laws

The Executive Secretary is the chief administrative officer (non-voting), of the National Council on Schoolhouse Construction and shall perform the duties assigned by the Board of Directors. He shall be appointed by and serve at the pleasure of the Board of Directors.

A recommended change from a total of seven to nine members as follows: There shall be a Board of Directors of nine members instead of seven. Six members instead of three shall be elected to serve for overlapping terms of three years, two to be elected each year.

In order to effect the proposed change due to the fact that two members remain on the Board, one for a period of two years and one for one year, for the year 1966-67, at the 1966 Annual Meeting, there shall be one member elected for a term of one year, one member elected for a term of two years and two members elected for a full term of three years. In subsequent years two persons shall be elected to the Board of Directors each year in addition to the election of the President-elect.

It was moved by George Reida, seconded by George Englehart and unanimously carried to accept the proposal as read.

NOMINATING COMMITTEE REPORT

ARNOLD C. TJOMSLAND,
Chairman

The Nominating Committee wishes to submit the following nominations:
For President-Elect—Dick Tonigan
For Board of Directors—
  1 year term—Don Leu
  2 year term—Marion Conrad
  3 year term—George Reida
  3 year term—Charles Wells

On behalf of the Nominating Committee I wish to present this report and I (Tjomsland) move its acceptance; seconded by Guy Tollerud, motion unanimously carried.

A. L. BECK—

Are there any additional nominations for the position of President-Elect? (No response.)

It was moved by C. O. Thompson, seconded by Floyd Parker and unanimously carried that nominations be closed and the nominees be elected by acclamation. Motion unanimously carried.

A. L. BECK—

Are there any other nominations for the position of Director for one year? (No response) I declare the nominations closed. For two years? (No response) I declare the nominations closed. For three years? (No response) I declare the nominations closed.

It was moved by A. E. Wohlers, seconded by James Theodores and unanimously carried that the nomination be accepted.

AASA-NCSC AFFILIATION

JOHN L. CAMERON

President-Elect, NCSC

Several months ago the Board of Directors asked that I investigate what might be involved in affiliating the National Council on Schoolhouse Construction with the American Association of School Administrators.

Last winter I met with Shirley Cooper, Mrs. Beatrice Sebastian and Miss Evelyn West of the AASA Headquarters Staff to discuss the matter. Just a few weeks ago, following Dr. Cooper's death, I spoke with Dr. Forrest Conner, Executive Secretary of AASA. The Board of Directors asked that Dr. Steve Knesovitch, assigned by Dr. Conner to represent him, meet with the Board to review what might be involved in such an affiliation.

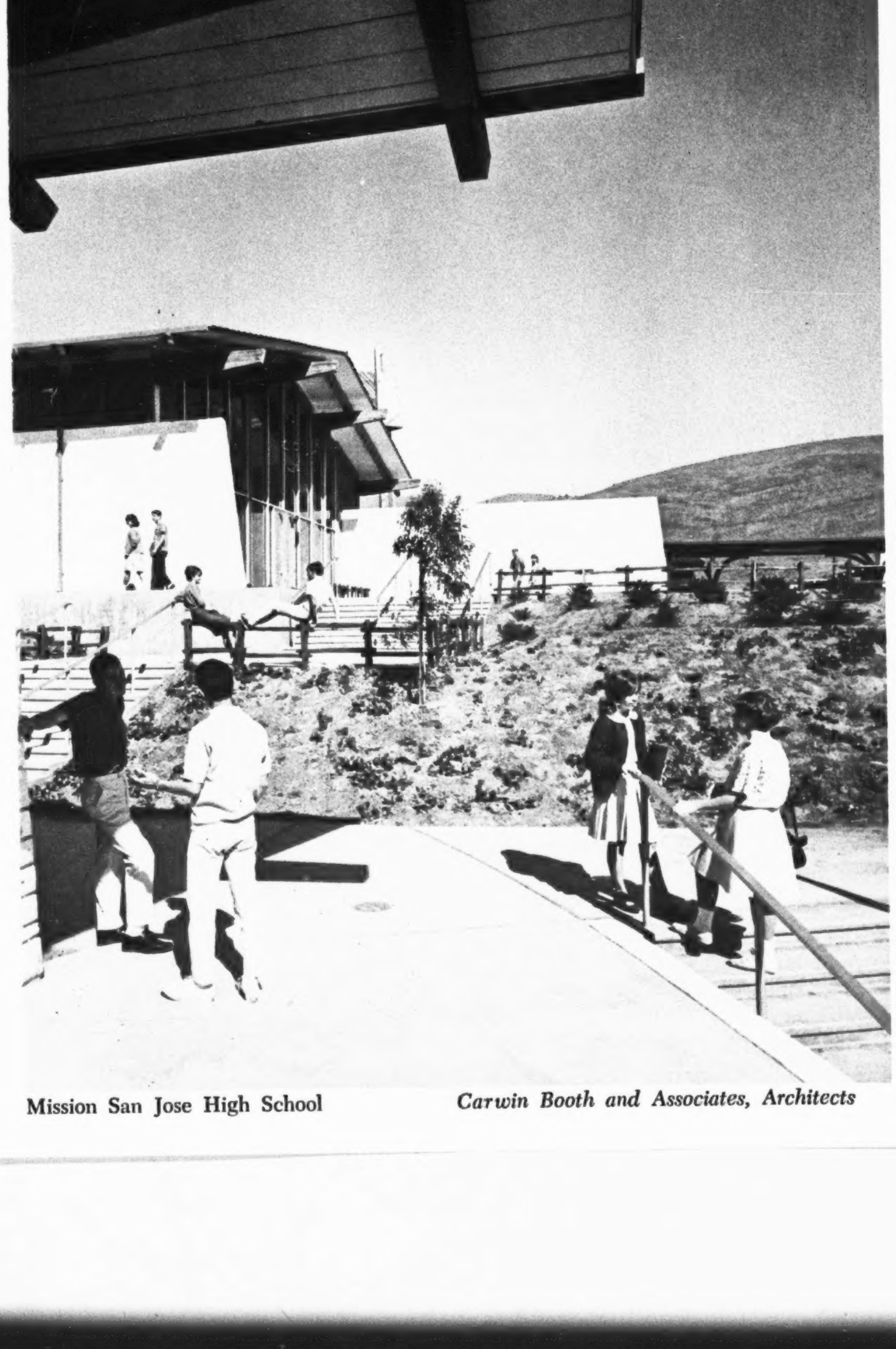
Dr. Knesovitch met with the Board Monday and he emphasized, as had been emphasized in earlier contacts, that such an affiliation would in no way impair or effect the autonomy of the National Council, nor would it effect the autonomy of any other affiliated organization.

I've listed two or three things which have evolved from various discussions. At the present time principal benefits to the National Council pertain to the annual meeting of AASA in Atlantic City. (1) The Council would be recognized in the program as an allied organization and meetings which the National Council would co-sponsor would be in the AASA program indicating that we are co-sponsors. (2) We would be given the privilege and responsibility of planning and conducting several of the seminars and discussion sessions of the Annual Meeting of the American Association of School Administrators now held annually in Atlantic City. (3) The assurance of AASA of a meeting place for our Board of Directors which has met the last several years in Atlantic City in conjunction with the AASA meeting, the same provision would be made for our committees that meet at that time. (4) Of particular interest to the officers and members of the Board of Directors would be a little preferential treatment and assurance that we could meet in the hotel of our choice. These are some of the things that would accrue to us at the present time.

Some aspects of affiliation that Dr. Conner and Dr. Knesovitch anticipate in the future are not assured; some of them may be realized in the near future while some of them may never be realized, but this represents some of the present thinking. I emphasize again that these factors would be optional with the National Council as to whether we wanted to participate in them. These would be opportunities rather than responsibilities unless *we* chose them as responsibilities. We would be sharing affiliation with several other associations primarily interested in educational administration. For example, we were told by Dr. Conner, that ASBO is very much interested in such affiliation. AASA is also interested in determining if others that work principally in this field are interested. One thing that Dr. Connor, in particular, stressed is that there would be a strength in unity associated with matters of mutual concern and interest. He gave as an example the vital concern of AASA that, at present, there is no identifiable unit within the Office of Education dealing specifically with educational facilities. He thought that were AASA and NCSC affiliated there would be greater strength in approaching the Commissioner of Education and discussing the matter of mutual concern. Another factor remotely possible, but possible nonetheless is the possibility of a sharing of housing or office accommodations. In such case, certain services such as mailing, printing, etc. might be shared. Also there might be joint sponsorship of publications and projects of mutual interest. The Board of Directors has considered this matter rather carefully and Mr. President, I make the following motion:

> That the National Council on Schoolhouse Construction request official approval and recognition by the American Association of School Administrators as an affiliated organization.

Motion seconded and unanimously carried.



Mission San Jose High School *Carwin Booth and Associates, Architects*

FIFTH GENERAL SESSION

Dr. Kenneth R. Widdall, Executive Secretary—Presiding

EDUCATIONAL FACILITIES PLANNING MUST BE IMPROVED IN AMERICA

DR. RICHARD F. TONIGAN,
Director

The theme of my talk is "Long-range Planning" and I would like to develop the general area of "The Improvement of Long-range Planning." I'm not going to attempt to detail how long-range planning is accomplished. I hope you will do that in your later sessions. What I would like to explore with you is, "Why long-range planning needs to be improved?" I shall use as my principle vehicle a discussion of some of the dramatic developments taking place today that make it quite evident that despite the value of our long-range planning programs in the past, we have to look anew and adopt major fresh approaches or we are going to be left behind the rest of the world.

J. Robert Oppenheimer, Director of the Advanced Institute at Princeton, once said, "Physicists combine acute curiosity with an acute need for order. Physicists like to understand what matter is all about." I hope that will be our approach this morning. We must recognize that we don't know everything about long-range planning and too, must exhibit an acute curiosity.

My belief that we need to improve our long-range planning stems not, as one might expect, from a detailed analysis of existing long-range practices, but rather from personal observations of what is happening in the world around us. I will review examples of technical and scientific progress which will have great impact on how we plan school buildings in the United States and Canada.

If you ultimately agree that such developments are dramatically changing our culture, then perhaps you will also agree that the long-range planning of our schools and colleges also must be dramatically improved. I will mention a number of dramatic changes; you are familiar with most of them, but perhaps recall will serve to illustrate the need to improve long-range planning.

Of great interest have been developments in outer space, not so much with man's moving through space, but with man's understanding of the universe. One of the interesting developments has been the knowledge acquired about the quasar. We have identified a galaxy ten million light years away which has had an explosion in process for some one million five hundred thousand light years. Explosions have been measured as shooting gas from the quasar fourteen thousand light years. The value derived from such astronomical explorations, of course, cannot be predicted; but it is obvious from such explorations that the country—the world—is advancing fantastically in the use of power and in the development of lenses which enable us to see things, in photography and chromatophotography.

In computerization, development of high temperature metals, plastics, communications, and X-rays, there are new developments. We do not know how long civilization will reap the rewards of these investigations or how much time will be required for development. But, some of you will remember that uranium was discovered in 1789 and was thought at that time to be merely a useless, dull gray metal.

In the area of communications we have had rather fantastic developments. Instantaneous worldwide communication is here. In addition, we now have the newly proposed satellite system, not the one currently in use, but one in development which is expected to take three or four years in the laboratory, and three or four years of research with airborne satellites. Within seven or eight years it is anticipated that we will have direct television communication from satellite to home; the local transmitting station will no longer be needed. Television then could be received in any home in the world. The sets they propose to use to receive satellite transmissions will be less expensive than those of today. Some think this will be the greatest single development in combating worldwide illiteracy.

Other interesting developments have been in the creation of light. Scientists report that they are able to create forms of light in the laboratory.

Scientists report the ability to identify man's genes and the possibility that great people might be mummified with genes preserved for hundreds of years, later to be crossed as desired, leading some day to super musicians, athletes and other exceptionally gifted persons. You may have read in *Time Magazine* and others about the RNA experiments at Abbott Laboratories in Chicago. Associated with RNA research is the theory that learning and memory are related to the production and storage of information in specific RNA molecules in the brain. Experiments reveal to scientists that injections of ribo-nucleic acid (RNA) into specific parts of the brain greatly increases memory and power to recall. Physicists are also involved in conducting explorations in the total mysteries of matter. Out of this has come fantastic potential to increasingly explore space, the development of new products and materials which appear initially to have only remote research possibilities, but ultimately move into applied science, our homes and schools. A physicist's modern definition of an every-day thing such as a diamond perhaps would illustrate what physicists are learning and thinking about today, and I quote: "The diamond is a patterned arrangement of atoms which are themselves mainly empty space with infinitesimal dabs of electrons whirling around infinitesimal dabs of protons and neutrons."

One of the exciting things I read, "In June, 1962 physicists at the thirty-three billion electron volt atom smashing synchrotron at Brook

Haven, Long Island fired atomic particles through 42 feet of armor plate and discovered the existence of two varieties of the nutrino, a mysterious and elusive particle as close to nothing as anything can be and so penetrating that it could shoot through one hundred trillion miles of lead as if it were a bullet passing through a cloud."

The positive particle accelerators is to nuclear physics as the telescope is to astronomy or as mathematics is to science. The positive particle accelerator in 1936 was experimentally built for approximately $50,000. The last one I know of to go into production is scheduled to be completed in 1967 at a cost of $114,000,000.

Quests for knowledge, such as those just illustrated, have affected technology greatly, not just in providing technical know how to make research possible, but equally important is the development of new equipment, products, and materials. Thousands of interesting and useful developments have taken place. Perhaps by citing a few of the developments we will be further convinced of how the world is changing about us.

Most of us recall Echo I and Echo II. It is interesting to note that Echo II, with a diameter of 135 feet, had a sandwich skin of two layers. One layer was plastic; the other was aluminum. The aluminum skin was .00052 inches thick, weighed 500 pounds and could be stored in a 40 inch cube container.

Recently we have seen the development of the data-phone used to link computer with computer or data processing equipment with data processing equipment. Perhaps some of you have not yet seen the letter-phone which permits you to insert a letter into the base of the unit thus reproducing your letter in a similar instrument in another city or in another country via telephone transmission wires. The data-tex is an automated editing service designed to save secretarial time in editing and retyping material. You are all very familiar with the sphere of computers and data processing and I won't delve into it except to refer to a recent announcement in the *Wall Street Journal* reporting a company in the business of making computer shared time available to home owners. They are reported as already making a profit. People are using shared time on either fractions of a minute or a second for calculating retirement income, insurance coverage, income tax, and a wide variety of projections. Apparently someday we will have a computer attachment for the home just as we have the telephone, the power plant, the water reservoir and other services.

To tap the tremendous power of atomic fission, physicists have devised a figure eight stelerator. The purpose of the stelerator is to enable scientists to control sustained atomic fission. The temperature required to sustain fission is 180,000,000 degrees and physicists with the figure eight stelerator are attempting to control atomic fission for periods longer than fractions of a second. Again, we don't know what this will mean, but it may be possible to control smoke pollution.

One of the new developments in plastics is a polymide film used in missile circuitry. The wonderful attribute of polymide film is that it maintains its physical, electrical and mechanical properties without detectable alteration at temperatures ranging from 0° to 750°. The film will permit not only greater exploration of space but of polar regions as well. Recently cores have been taken at the South Pole revealing the development of that region approximately 18,000 years ago. Thus we see that long-range planning and development is of great interest to our physicists.

Rapidly approaching reality is the development of the magneto-hydrodynamic generator which creates electricity by passing super heated gases through a magnetic field. They offer great economy because once charged, the magnetic field requires practically no power to sustain activity. Here is another possible source of eliminating large quantities of air pollutants.

It is possible that someday worldwide starvation may be greatly relieved in a relatively short time by the process of instantaneous freeze-dry foods. Portable plants will be taken to areas where large quantities of surplus food that ordinarily would spoil to instantaneously freeze, dry and store it for indefinite periods or ship it to parts of the world in need of food.

As I'm sure you have already detected, developments in new technologies have produced a whole new vocabulary, indicating that we can't just stay where we've been; we must work very hard to keep up with the world. We see terms very frequently like micro-electronics, transiton, diodes, and compact monolithic integrated circuitry.

An interesting use of the computer that we will see within a year or two is the control of super-sized commercial jet aircraft now in prototype. Each commercial plane will have two computers in the cockpit. Another one is reported to have three. But these airborne computers will be linked to airport computers designed to decelerate flight, control the decent, bring the plane into glide path, guide its landing and bring it to a stop. The pilot will function as a third backup. The first airborne computer will read tape from the ground computer and the second "flying" computer will check the first computer; the third computer checks the second computer. If at any time there is a misreading of the computer system, one instantaneously cuts in and picks up the other. The poor pilot just sits there and only when all computers fail is he to take the controls. Of course, in some cases automation can be overdone. Just a few years ago they were predicting that automation would put us all out of work. Most now find that automation has provided more work for us.

In addition to technological growth, we who plan schools need to become better acquainted with developments in big business. When I speak of big business I'm thinking principally of commercial and industrial management. We need to know how top management is able to understand, stimulate, equip, and control the large-scale operations of today's industrial and commercial giants. Especially interesting are those of the one to thirty-five billion dollar asset category. We need to learn from these giants how they operate, analyze responsibility and evaluate processes and results.

Such knowledge is important because many school systems are so large that we have a responsibility to learn from those who have preceded us in large-scale operations. We need to learn how top-quality managers have been selected, how they are developed, and how they remain adaptable.

We need to understand how they undertake to involve appropriate people in policy and decision making. It is not that we necessarily want to be like any of them, but there is much we might learn from their experiences that will enable us to better understand and operate our school systems.

Not only are the educational systems of this country growing larger, they are also becoming exceedingly complex. They require a new type of educational management. We as school and university planners had better keep our eyes on how top management of our schools, states, and of the nation are developing. If we don't, we are going to fail to understand how major decisions are made. Some major decisions of primary concern to us have to do with the selection of architects, approval of plans and the preparation of budgets.

Is it possible that manufacturers of materials and products used to shape the physical environment of our schools and universities are relatively unaware of societal changes which are taking place? Should that be the case, our school systems will suffer not merely because we as planners have not kept up, but because those things available to us have not kept pace. Is big business attempting to determine school programs for the next several generations? Are they trying to determine what our student population, our schools are to be in the future? Are they attempting to develop a product purely on the profit motive which in effect will develop a status-quo condition in schools. I believe we must observe, and guide all major industries entering the field as to what they produce.

The size of some companies, of course, is astronomical. They are so vast we don't know where decisions are made, and yet they are decisions that have great impact upon our future. I cannot help but feel that on a national basis we have got to make some effort to know the companies who are in the school building, instructional materials and other fields. We must convey to them the nature of the school and the school population.

One of the big businesses that perhaps best illustrates big business is that of life insurance. At present, there are 1650 life insurance companies in the United States who employ 1.2 million people and control 900 billion dollars of insurance. In yesterday's *Wall Street Journal* there was a very interesting article on leasing life insurance. It is now possible to take your life insurance policy to a company that will buy it and lease it back to you. Your annual premium is less because they take your money and invest it so that it returns at a higher annual rate than do investments normally available to life insurance companies. This is another contract problem we will probably be facing. Life insurance companies are very interesting to us, especially those who work with authorities or state bonding agencies. Insurance companies hold 38% of all mortages in the United States. They have great impact on our revenue bonds as they move through the money market.

Another sector of our soeicty undergoing change is law—more specifically—the interpretation of law. In the last fifteen years we have seen a number of very important decisions, both at the Federal and state levels that are contrary to what we learned in our school law course or the advice of our local attorney.

One of the major problems deals with world population, which ultimately relates to school population. By the year 2000 it is expected that world population will have increased from the present 3 billion to 6 billion. Within thirty-five years (2000 A.D.) not only will we have to increase the food supply to meet this doubling, but we will have to triple the food supply to compensate for the present negative situation. Is it logical to think that education will be the key to employment, to food, to income, to the personal satisfaction of these people? I tend to think that most of us must answer in the affirmative.

Schools in general are going to expand and change greatly. Systems are going to become larger and more complex in an effort to meet our needs. You can go to almost any major university and find it has anywhere from twenty to thirty contracts with foreign governments. They have parties in those countries working with professors, colleges, public school systems or working toward the development of the public school concept.

What we are doing today will probably be done ten years hence by our one-third membership of architects from Chili, Puerto Rico and other countries from Europe, Africa and Asia. Our whole concept is total involvement. As the only major planning body in the world devoting itself exclusively to the professional development of school planners, we are very likely to assume international status. Last year, as some of you know, the Council, for the first time, became active in UNESCO.

In the U. S. there are approximately 200 million people, one-fourth of the population is already enrolled in schools and universities of the country and another 30 or 40 percent are enrolled on a part-time basis in non-credit adult education courses either in schools and colleges or industrial training programs serving more than five million people, or in vocational-technical programs enrolling another five million people. We are going to see great developments as public school systems, colleges and universities attempt to further analyze what is happening in industrial education and in vocational-technical education.

I don't want to imply that these facts mean that we haven't done a good job in this country, because anyone who is familiar with the statistics of school growth knows that a fantastic job has been done. It is estimated that the school population of the country will have increased from 31 million in 1950 to 54 million in 1970. We have taken on a great burden in the number of students enrolled. Yet, in spite of severe growing pains, we have experienced great advancements in program.

Several problems facing our society appear to have great implication for American education. Seventy per cent of our population lives in the city. Bill Chase stated that 30 or 40 per cent of the people who will be in our school systems ten or more years from now will be in cities that do not now exist. Middle-class whites are moving out of the city constituting the biggest single recognized problem to those in architecture, planning or urban renewal, and certainly to those who are in urban education. We need to be concerned with what can be done to make the urban area a better place to live so that over the long haul we're able to retain the tax base that we'd like to have available to our schools.

Another major problem is suicide. In 1965 the number of suicides in America, as reported by the Life Insurance Institute, accounted for half as many deaths as automobile accidents. The death rate which was cut approximately in half in the thirty years preceding 1954, has remained almost constant for the last ten years. Somehow we made a great move forward in reducing the death rate; however, now it has stagnated. What this will do to our projections for educational facilities is yet unknown. We're all acquainted with the fact that life expectancy has greatly increased, but it also seems to have reached a plateau.

We have to ask ourselves, "Do we as school planners know enough about the pre-kindergarten program and pre-kindergarten children to expertly meet their needs?" And we might also ask ourselves, "Do we know enough about the technical-vocational needs of the country to develop technical-vocational programs?"

I mentioned very early the need for man to be adaptable; herein is the key. The key to being able to accept change. To implement them, interpret their meaning and move them toward application relates substantially to our adaptability. We know that man, as a rule, resists change; it seems to be a natural thing to do. We as individuals should frequently ask, "How adaptable am I? What can I do to accept change? How can I objectively analyze a suggested change or idea in order to determine its merit?"

A very interesting educational development is the junior college program. There are now approximately 650 member junior colleges in the American Association of Junior Colleges. That number roughly represents one-sixth of all colleges in the United States. Those who are familiar with the junior college program being developed can expect that our planning efforts will be influenced by the nationwide junior college movement.

In recent years we've seen new grouping methods, new audio-visual equipment, program, texts, new approaches to teaching mathematics, language laboratories, new approaches to the gifted student program, increased education for the handicapped, team teaching, non-graded classrooms, closed-circuit television, and the acceptance of individualized study carrells. Some elementary schools provide a private study niche for every student. We have seen many changes in the past decade, and yet, during that time we've coped with fantastic expansion, shortages of labor, personnel and material. It will be very interesting to see what happens during the next ten or twenty years in the application of science, technology and new knowledge in our field.

Programs are being broadened. The school day and school year have been lengthened. Education for all ages is a growing concern. College and university interests have greatly expanded. Available knowledge reportedly has doubled during the past ten years. Student research is more practical and widespread. In some colleges professors have two offices; one for daily work and another where they can look into behavioral science, do laboratory work or conduct original research. Some so-called standards calling for 150 square feet per professor must be modified. The rapid and continuous change in education really illustrates the danger of specifying so many square feet for any particular purpose. Requirements are changing very rapidly.

We have learned that re-training is almost as important to our educational system as is initial training or initial education. Studies show that a person may have as many as four or five vocations during a lifetime—not so much in the professions, but certainly on the vocational level. When we met in Toronto, the Vice-President of the Canadian Broadcasting System reported that of the 350 major occupations that existed in Canada in 1950 only ten of those were still in the top 350 listed in 1960. Retraining truely is of great concern.

Perhaps one of the brighter developments is that of Federal Aid. We may dislike some of the ramifications, the HUD payroll forms or some of the approval requirements. But most of us would agree, especially as related to the U. S. Office, that there has been a great deal of understanding, cooperation and certainly a little control. I have the feeling that a type of Federal control has evolved, perhaps without us realizing it and without it being intended. I can't help but feel that perhaps we are being stereotyped into an approach, quoting fantastic statistics and facing monumental problems, to the extent that we may lose sight of our objective to get things done.

School costs are another concern. We're moving more and more into costly urban land that takes much longer to acquire and develop. It means that less tax comes from that land because it has to be acquired so far in advance of actual need. We've seen the labor market sky rocket. Plumbers in St. Louis have signed a five-year contract which will have them on a pay scale of slightly in excess of $10 per hour in 1972. Those of you who are familiar with New York City conditions know that for years we have had trades working on a 25-hour-per week basis. Although they don't work twenty-five hours, that's the basis of their pay. And they have guaranteed agreements that they will be employed at least an hour a day at double overtime for so many hours a week.

There is another side to consider, however. We recognize that school building costs have not risen as rapidly as have costs of other types of buildings. It may indicate that we're not doing a good job. We do know that the total construction bill in the U. S. last year was 76 billion dollars. Education related construction accounted for approximately 4 billion. I think we can show that educational costs are not out-of-line with the value of education. We can also experience satisfaction in that we are meeting a much larger need of a much larger population.

I've always felt that education leads to education. The more education a person has, the more he wants. In estimating our educational needs we ought to have a factor that provides for the fact that education motivates an individual to acquire more education. It has ramifications for planning. I don't know why we worry so much about school costs in the United States.

Some how we have to raise the question of priorities, especially as relates to cost. The *New York Times* recently carried a story on the construction and rehabilitation of the Belmont Race Track on Long Island; The project is going to cost 31 million dollars. We worry that our elementary schools or our high schools cost a few million dollars while at the same time huge sums are expended elsewhere with almost complete abandon. Where are our priorities?

In conclusion I would like to reiterate that I have been attempting to sketch the scope and nature of cultural change that affect us as planners and to cite the tempo of that change. Secondly, I have attempted to stress the need that we as educators, architects, planners remain adaptable. I pose a number of questions that I hope will lead to further group discussion.

1. What long-range school and university facilities planning actually needs to be accomplished?
2. What can we as individuals do to contribute to the improvement of long-range planning of educational plants?
3. How is long-range planning related to the objective of providing the best possible learning environment for the whole range of abilities and interests of every school child?
4. Who will take care of the plants tomorrow that we are building today?
5. How do we help our boards of control show due regard for the support of a facilities program?
6. Where will we secure financial support for school plant research?
7. What long-range steps should be taken to improve the availability of school construction funds?
8. Should property tax computation methods and rules be revised? If so, how?
9. Would it be helpful for local schools and colleges to establish new partnerships with federal or state governments or with industry and commerce?
10. Is beauty a component of function?
11. How can we who manage building programs support our architects in their attempts to provide truly fine architecture?
12. How can we best help school boards decide on the size, location, use and development of sites?
13. What can we do as planners, and architects on planning teams, to build schools with more creative and inspiring environments?
14. Are there steps we can take to improve our personal and professional development, both on an individual basis and through in-service programs?
15. How is program likely to change and how can we keep abreast of change?
16. Via what channels do we learn and contribute to program development?

17. What are the United States and Canada going to do for those youths whose needs are not being fulfilled by current elementary and secondary school programs?
18. Will we be increasingly designing special facilities for educational programs for neglected groups?
19. Will we undertake research to learn more about the concerns of young adults?
20. Will we discover new media and new types of activities to meet more of the educational needs of our young?

I hope you will arrive at some answers and consider other questions in your group meetings.

IMPROVING LONG-RANGE PLANNING FOR URBAN SCHOOLS

Discussion Leader—James L. Theodores
Panelists—Fred A. Wegner, Architect
Ben E. Graves, Project Director,
Great Cities Program
Felix E. Oswalt, Ass't. Supt. of Schools
Recorder—Felix E. Oswalt

Ben Graves explained the program of the Research Council of the Great Cities in modernizing existing facilities. True modernization was depicted as being much more than a few superficial changes to clean the place; it involves greater depth of transformation to effectively adapt the facility to educational requirements. With reference to the use of open spaces in some facilities, it was suggested that too much attention may be given to providing "freezer space" and not enough attention given to room for "warm bodies."

Fred Wegner spoke of Milwaukee's success in the long range acquisition of school sites through the utilization of a committee composed of school staff and civil authoriites. Through the committee all agencies are permitted full expression on site problems and needs. Use of the committee facilitated early acquisition of school sites at reasonable prices.

Felix Oswalt suggested a need for a vertical transportation feasibility study with special application to areas of high land values and dense population. He suggested the need to find better ways to utilize urban educational facilities and expressed concern for ways to offset the impact and frustration of some of the federal programs where funds are not available for broad based programs.

Discussion:

Concern was voiced regarding the suitability of the NCSC *Guide* for urban school planning. Some felt the *Guide* was ill suited for urban school planners and members of urban school boards.

Question—How can suitable school sites be obtained in densely populated urban areas?

Comment—In areas of excessively high land costs consideration should be given to the exercise of air rights over highways and railroads.
—It must be recognized that land acquisition costs exert strong influence on urban school design.

Relative to the use of elevators and escalators in urban schools it was evident that none present had given full consideration to the problem nor was a completely satisfactory solution advanced.

Question—Why are schools incorporated in commercial and apartment buildings?

Comment—It appears that the main reason is to provide for future use of the facility when it is no longer needed as a school.

Question—Why have they had so many problems with the New School in New York City?

Comment—The problems probably are the result of insufficient community involvement in planning the school. When different ethnic groups are affected more community involvement is required than might normally be expected.

The educational park concept was discussed pro and con. It was suggested that real estate interests appear to promote the educational park concept in an effort to improve land values. Some felt there would be problems in preventing older children from encroaching on the areas provided for younger children. Some concern was expressed over providing security even when dogs were utilized.

Need for a closer relationship between educational planners and other local and national planning agencies was evidenced by several participants. Some reported excellent planning relations where the educational planner participated as a member of the local overall planning organization. It was also felt that suitable relations need to be established nationwide between educational planners and city planning groups.

IMPROVING LONG-RANGE PLANNING FOR SUBURBAN AND RURAL SCHOOLS

Discussion Leader—Kenneth R. Widdall
Recorders—Garfield Smith—Engineer
Edgar Chatman-Royce—Architect

Discussion centered on research needed for future educational needs. It was suggested that more unbiased information was needed on floor coverings. How can it be obtained? It was noted that the Wharton School had compiled one such research report.

Relative to accoustical environment, the question was asked, "What is an acceptable noise level for effective learnings?"

Factors: Identify type of noise.

Determine significant differences between traditional and open planing.

Unit ventilators were reported to provide suitable background noise where walls had been removed to provide areas for team teaching experiences.

Classrooms with radiators were reported as being too quiet, in which case windows were opened to admit traffic noise.

In a specific reference it was reported that only one teacher failed to adapt to team teaching concept where in only visual separation was provided between instructional areas.

Question—Should concern be centered on needs of teachers or students?

Comment—Large, open teaching areas have been in evidence since the days of the one-room school house where all grades were taught. Many children were instructed on combined class basis, i.e., 5th and 6th grade students were combined and instructed as a unit.

—The proper background noise level is directly related to subject matter and teaching methods.

—Experience has shown the effectiveness of open planning, however, there is no empirical evidence that teaching in carpeted areas is superior. An evaluative instrument must be developed for application by researchers.

Question—How can suitable thermal environment be provided at minimum expense?

Comment—Air conditioning of Great Neck, N.Y. schools to facilitate year round use was considered excessively expensive.

—One solution was advanced. Replace two upper glass panels on each floor level with insulated porcelain enameled panels.

—Visit schools where design accommodates exterior environment.

Question—What is a reasonable period for long-range planning purposes?

Comment—An architect suggested 10 years as one method—taking 10 year population projections which were arbitrarily doubled. At the conclusion of the 10 year period the projections were found 30 to 40% less than population.

—Long-range projections are significantly more difficult and associated with much greater chance for error.

—We could not use a long-range plan but adapted a population saturation point and then retrogressed to shorter term problems. Planning was continuously modified rather than periodically revised.

—We have no long-range plans but rely on a series of short-range plans based on (1) population trends, (2) experience with materials, (3) plans and (4) utilization.

—Long-range planning involves consultants, architects, engineers, maintenance personnel, contractors, administrators, instructional staff and state school planning personnel.

—We use the neighborhood grid system which is computerized. We use statistical data on birth rate age levels, in-migration, out-migration, population shifts, etc. to form attendance districts. Organization is continuously revised as additional data are available. Efforts are coordinated with total community planning.

—There is a four-year lag between research and technical knowledge and their application in building schools. There is a time lag in reporting population changes. Usually a two-year lag exists in the stages of planning and construction. We base all of our planning on minimum-time lag of construction. "If maximum student population is locally "guesstimated" at 100,000 students, What happens if a population decrease is experienced?"

—The building layout must provide for future flexibility. Research and long-range planning can easily be paid for by savings in instructional and administrative costs as well as by reduced maintenance and operating expenses. *Nations Schools* provides a detailed analysis of long-range planning. Changes in the instructional program are very important factors in determining physical facilities. All factors of facility utilization must be considered. Do not restrict your planning to probabilities; possibilities must be considered in real long-range planning. Example, if air conditioning is a future possibility, but not an immediate probability; design for future air conditioning.

Question—How can we design for unknown teaching aids, instructional equipment and future teaching methodology?

Comment—The best we can do is to provide for maximum flexibility in design and construction.

Question—How can communications be improved among members of the planning team? What do you look for in the facilities planner, educator, architect, engineer, and consultant?

Comment—Each person regardless of his special discipline must have experience in many disciplines.

—A consulting architect can serve to bridge the communications gap.

—A vocabulary common to all members of the planning team must be established.

—We need to adopt the idea of the team approach—educator and architect working together toward a solution.

—Research is needed to facilitate proper communication among members of the planning team. Too much depends on subjective judgment and experience of those of the team.

—The architect's fee is not enough to expect comprehensive planning. If this is expected, the fee should be increased.

—The architect must know just what the building is to accomplish.

Question—What size should a school district be to afford a fulltime person to coordinate all planning functions?

Comment—Any district having one or more major construction programs at all times should have a planning staff or at least one person to coordinate the total long-range program.

—The architect should concentrate on construction rather than research and planning.

Question—What are the roles of local, city, county and state planners in the construction program?

Comment—The local planners have the responsibility for daily coordination and planning. Regional and state planners are responsible for overall, grand school planning. Educational specifications are a local responsibility.

Question—What advice can we offer to the new superintendent of schools facing an expansion program?

Comment—Ask for help from personnel at the state level and from private consultants.

—Do away with the fear of criticism.

—Become actively involved in NCSC activities.

IMPROVING LONG-RANGE PLANNING FOR COLLEGES AND UNIVERSITIES

Discussion Leader—Stanley Sharp, Architect
Recorder—Walter Coyle, Plant Manager

An architect stated that long-range planning is a "must," with reference to the challenge of planning ahead. The campus planning problem is a total job that has to be done. He was critical of the failure of persons involved in the planning process who fail to utilize past planning proposals.

He raised the question as to whether the decision was usually made to limit the maximum size of a university. One participant reported that Michigan State has definitely set a maximum size of their institution. Another advised that in Kansas City an administrative change had also resulted in a change in the university and resulted in the discarding of a previously developed plan. A Canadian planner related that there is a report available from British Columbia regarding plans to decentralize college growth. Due to the decentralized concept much pressure to expand the University of British Columbia has been relieved.

A representative from California advised that they are obligated to accept all students who apply to junior colleges and colleges resulting in considerable expansion of their institutions and the building of "satellite" colleges while private colleges like Stanford control the size of their student body through admission policies.

Considerable difficulty was reported in endeavoring to forecast future needs. Concern was expressed regarding the financial ability of a state to provide for its college growth and that there is a movement by several states to combine resources to provide for common needs.

In Texas architects are advised to master-plan for a student body of 10,000 and future growth beyond that point. Sites usually approximate 150 acres.

A serious problem in California is that of estimating the maximum size of community colleges. Community colleges have expressed difficulty regarding the admission of high school students who cannot cope with the educational programs. In San Mateo, teachers are working with students to better prepare them for community college.

A question was raised as to the extent that architects are involved in the early planning stages; the general response was that they were not sufficiently involved.

IMPROVING LONG-RANGE PLANNING ON THE NATIONAL SCENE

Discussion Leader—Richard F. Tonigan

Recorder—Glenn C. Boerrigter, Research
Coordinator, Research Bureau, U. S.
Office of Education

Discussion centered on financing school and college planning and construction. Much greater federal funding was thought to be necessary in the areas of research and development thus providing effective guidance to local and Federal construction expenditures. Great difficulty was reported in obtaining approvals of research and development grant requests at USOE. It was thought that USOE should include Institutes for Planners in the National Defense Education Act programs.

Much greater success was reported in securing elementary and secondary school related grants from NIH, NSF, NASA, and other agencies than from USOE. It was also mentioned that federal surplus properties were available at little or no cost from the Department of Housing and Urban Development. Such properties include former post offices, missile sites and air bases suitable for use as school sites for special programs.

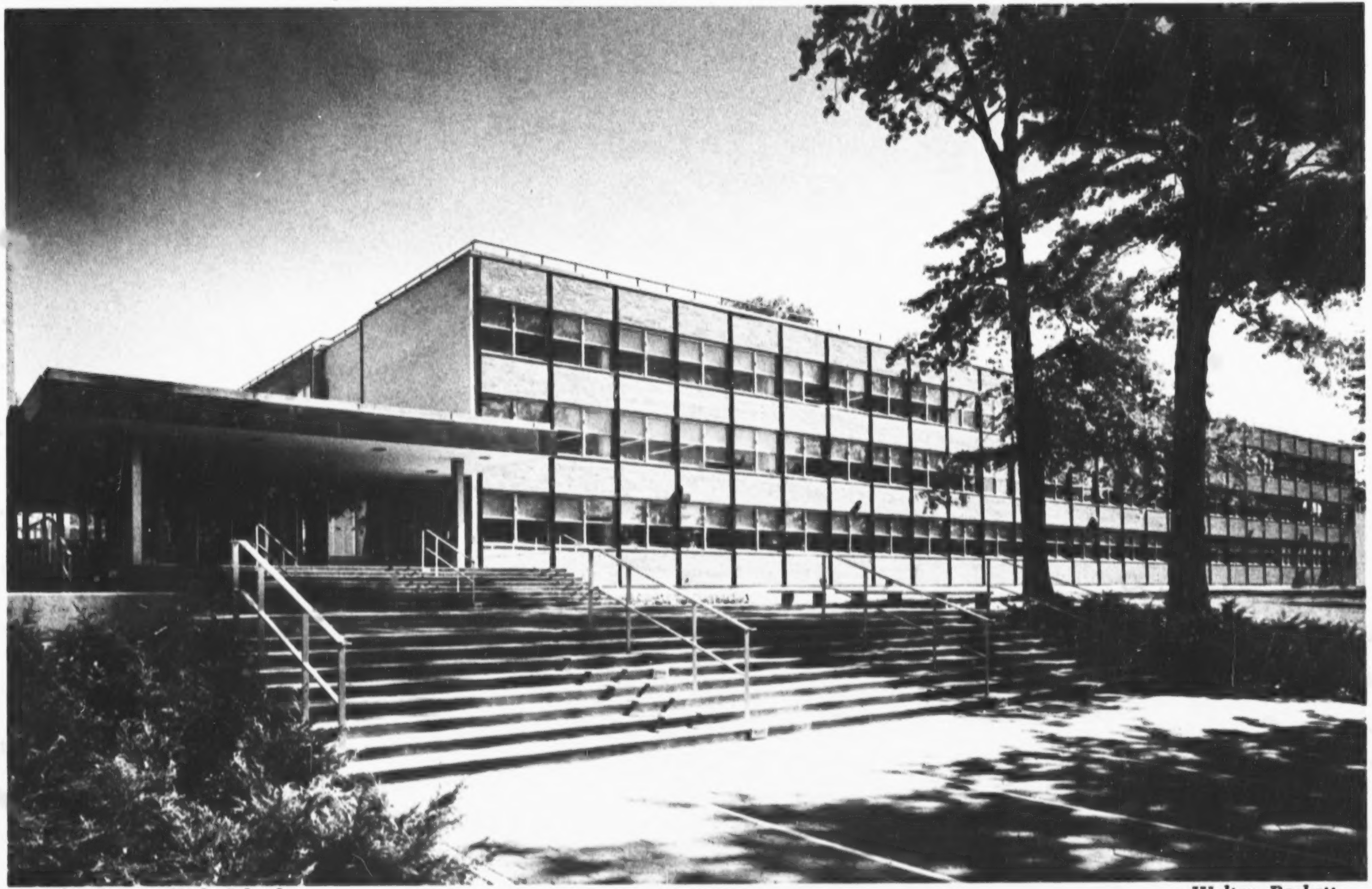
It was reported that the Open Spaces Act had approximately $20,000,000 unobligated and grants made on a 50/50 basis may be extensively used to improve school sites. Some of the school's share can include some of the local system's service cost related to the project. Open Spaces Act funds can be used for site improvement, certain types of building, reforestation projects and other worthy endeavors.

Of considerable interest was the report that many services are available from the Department of Agriculture without charge. In addition to the use of soil analysts, soil bearing studies, topographical maps it is now possible to obtain aerial surveys of entire school districts by contacting the county soil district conservationist of the Department of Agriculture.

As reported by participants experienced in working with USOE and HUD much more time, money and effort were expended in HUD projects than with USOE projects. In light of such experience, it was urged that USOE establish a branch to supervise the construction aspects of its grants rather than through agreements with HUD for supervisory services.

A catalog on federal aid programs is available to local governmental units through the office of their Congressman; it is published by the Office of Economic Opportunity.

Representatives of institutions of higher education reported that their respective institutions had established "Grant Offices" to assist faculty in preparing grant applications, identify potential grant sources, administer a public relations program in Washington and with local representatives in Congress and to hand-carry applications to Washington.



John Bowne High School

Welton Beckett

SIXTH GENERAL SESSION

EDUCATIONAL SPECIFICATIONS

ROBERT L. GUILD,
Director—Presiding

Dr. Cleve Westby introduced the section leaders on educational specifications: Dr. Harold Cramer, Coordinator of Schools and Planning Services for the State Department of Education in Tallahassee, Florida; Mr. William Corlett, partner in the firm of Corlett, Corlett and Spackman in San Francisco and chairman of the AIA Committee on School and College Architecture; Dr. Charles Wells, Planning Consultant for all public school construction in Wayne County, Michigan, specializing in educational specifications; and, Mr. Warren Vogt, Dean of Vocational and Technical Education in Southwestern College, Chula Vista, California and Consultant on School Construction for all the school districts in San Diego County.

Dr. Cramer—Our introduction will be a brief history of educational planning, including trying to put edcuational specifications into their proper perspective. We'll talk briefly about the need, purpose, responsibility, and who should participate. Then we'll discuss the responsibility of national organizations for leadership and what we might expect from them. We will discuss:

(1) the responsibility for leadership on the state level (not what we are doing, but what we think we should be doing),
(2) what it takes to initiate a program on a state-wide basis,
(3) what kind of an organization is needed,
(4) what staffing is needed on the state level, and
(5) some procedural information.

We'll discuss the same points on the district level, and in cases of small districts, what might be done on a regional basis combining some of the districts for services for educational planning. We will follow this presentation with a panel of reacters and questions from the floor.

Dr. Cramer then introducted the people who planned and prepared the material pointing out their wide divergence of experience, background and geographical locations as advantageously reflecting many different points of view: Charles Stripling and Wayne Betts, architects from his office; Dr. Gene Chick, panel moderator; Aubrey Calvert of the Los Angeles Office of the California Bureau of School Plant Planning; Dr. Charles Trotter of the U. S. Office of Education and formerly of the Educational Facilities Laboratory at the University of Tennessee; and Andrew Ferendino, architect for the Dade County Board of Education, Dade County, Florida.

Mr. William Corlett made his presentation by giving his answers to five specific questions: (1) What is an educational specification? It's the fundamental first step in the orderly process of designing an educational facility. (2) For whom is it intended? An educational specification is primarily for the educator because it forces him to reduce his thoughts to writing and causes him to clearly define his goals; it should be mandatory reading for Trustees and/or Boards of Education and lastly, it's the architect's Bible. (3) Who should prepare it? In the large school district, the administrative staff plays the key role. Department heads and key teachers should be involved and on the high school level, we'd like to hear some suggestions from students. Lastly, I feel that architects should be involved in this preparation stage. In remote areas, the educational consultant is a definite asset. (4) What should it contain? It presents the district's educational philosophy and a clear, concise statement of what we want to do in the space, then storage requirements, room diagrams and suggested relationships—not sizes and dimensions—just specify the environment and what goes on in any complete plant or specific area. (5) What can be done to facilitate better educational specifications? In spite of numerous papers and publications on educational specifications, there isn't a real comprehensive document which we can call a guide or manual in existence. We're looking forward to such a publication and feel that NCSC has just the talent to produce it. We hope to enlist the financial aid of Educational Facilities Laboratory on the publication.

Dr. Charles Wells, too, referred to the need for an educational specification manual and assistance provided by material assembled by Dr. Russell Wilson of the University of Michigan and Dr. James MacConnell of Stanford University. Dr. Wells asked for the help of all those assembled in terms of contributions each might make by bringing to the attention of the committee any particularly good points he has encountered.

Mr. Warren Vogt extended an invitation to his section meeting on the interpretation of educational specifications with an eye to improving cooperation and working relationships between architects and educators. He referred back to the three major factors: *population, technology* and *knowledge explosion* and their implications for education.

Dr. Westby closed the meeting by requesting the completion and return of meeting evaluation forms distributed earlier, explaining the hope that an analysis of the effectiveness of the presentations will help improve future programs.

Stevens T. Mason Junior High School

Wakley Kushner Associates

ANNUAL BANQUET

A. L. BECK,
President—Presiding

Names of Platform Guests

Dr. Francis Darby
Dr. Kenneth Widdall
Mrs. A. L. Beck
Dr. John Cameron
Mrs. Floyd Parker
Dr. Floyd Parker
Aaron Cohodes

Local Arrangements Committee

Dr. and Mrs. Donald Davis
Dr. and Mrs. James MacConnell
Mr. and Mrs. Pat Felise
Mr. and Mrs. John Myers
Dr. and Mrs. Charles Gibson
Mr. and Mrs. Stacey Hertsche
Mr. and Mrs. Harvey Ferris
Mr. and Mrs. Wilbert Vestnys
Dr. and Mrs. John Boice

REPORT OF THE RESOLUTIONS COMMITTEE

Moved by Boles, seconded by T. Naylor that Resolutions Committee Report be accepted.

President A. L. Beck called on our retiring past president for a few words.

Past President Francis Darby considered it a privilege saying: "Most of us here in the organization have had an opportunity to know Floyd Parker very well; those of you who are new have missed the real privilege of that opportunity. Those of us on the Board have a better conception of how much work Floyd has done for the Council. I know that the Resolutions Committee has already thanked you Floyd, the Board of Directors, however, wanted to do something a little bit more personal and it's my privilege to give you a small gift to convey as best we can our sincere appreciation for all of your services. Floyd!

(Gift presented to Dr. Parker)

After receiving a standing ovation, Dr. Parker thanked the Board and the membership and reminised for a few moments on past meetings and humorous incidents.

Aaron Cohodes—"The School of the Year Award is made on the basis of the selection of the School of the Month Awards, which in turn are selected for excellence of architectural design, functional planning, economy of construction and operation, and unique provisions for the educational needs of students and the community. There is no such thing as a perfect school; the idea is to call attention to good school design with the hope that it will encourage even better design. This year the school selected as the school of the year is the John H. Reagan High School, Austin, Texas."

Mr. Aaron Cohodes and President Beck presented the awards to Temple Mayhall, Director of School Plant, Austin Independent School District and to Madison H. Mills representing the architectural firm that designed the school, Page, Southerland & Page of Austin.

Madison H. Mills—It is with great pride that I accept this great honor on behalf of Page, Sutherland & Page. As all of you well know, it is not any one person or even a few people who create a building, and particularly a schoolhouse. The ideas, thoughts, and work of many educators, engineers, school plant administrators, custodians, school board members, coaches, librarians, all go into the final product. And so I thank you for our many counselors and assistants also.

We received the commission to design this school from the school board; we also received three major challenges: (1) to design a school that could expand from an initial enrollment of 1,250 students to an ultimate of 2,500, (2) design an air conditioned school to be built for very little bit more than a non-airconditioned facility, and (3) create an educational environment that would lend itself to team teaching and other learning innovations without making it mandatory. The first problem, the size problem, we answered by sizing all of the specialized areas, the gymnasium, the cafeteria, and that sort of thing, for the ultimate enrollment by planning a future structure that would double the number of academic classrooms. The cost problem we solved partially by the overall planning, a rather compact campus plan, with as few interior corridors to cool as practical. Very astute planning on the parts of engineers, both structural and mechanical, by reducing the number of windows, both in size and number to a minimum had very great effect on the air conditioning. It resulted in a cost of construction of $12 a square foot. The educational environment problem was answered by throwing away some partitions—the one teacher per classroom idea. By taking the teachers out of the classrooms except when they're teaching, we avoided empty classrooms, giving much more possibility for flexible scheduling and provided or encouraged cooperation and coordination in the various disciplines.

JOHN H. REAGAN HIGH SCHOOL

AS DESCRIBED BY MADISON MILLS, ARCHITECT

(Film Slide Commentary)

In all buildings certain basic ideas and requirements will affect the ultimate design. The effectiveness of the building and its adaptability to the instructional program depends on the success in incorporating these requirements in the final plan. The major requirements placed upon the architects are discussed briefly in the following paragraphs.

Air Conditioning—The requirement of air conditioning followed the policy adopted in 1964 by the Board of Trustees; that of air conditioning *all* new units and additions. This first new air conditioned high school will be followed by two elementary schools. Incidentally, the Austin system now has eighteen completely air conditioned schools and thirteen partially air conditioned. Air conditioning, of course, was to be approached as economically as possible and therefore influenced the use of open corridors. Fortunately the architect was able to combine economic factors with the classroom scheme to the advantage of each, achieving a satisfactory classroom arrangement with a minimum of closed corridors.

The air conditioned building has been well received. Although not statistically substantiated, disciplinary problems seem fewer, and there is noticeable lack of fatigue on the part of the teachers.

Teacher Centers and Clustered Classrooms—In making inquiries of teachers for the expression of their greatest need, the most universal expression was that of a "place to work." This need stems from (1) the practice of allowing each teacher an "off-period," (2) department chairmen being given additional time for administrative work, and (3) using, where possible, every room every period of the day, thus dispossessing the "room" teacher for the convenience of the "traveling" teacher.

It also appeared economically desirable to provide a common facility for collecting, preparing, and storing teaching media, one which could make available *all* materials to *all* teachers without undue duplication.

The implications for "team teaching," without regard to the wide variation in its interpretation, seemed to point to "team effort" requiring a place where teachers could exchange ideas and materials and could do cooperative planning. Thus the idea of clusters of teaching spaces about "teacher centers" was incorporated.

The "teacher center" makes *teacher possession* of a given room entirely unnecessary. Parenthetically, we must admit that some few "old heads" are very difficult to reform, but generally, it has been well accepted. As one teacher put it, "It's a wonderful setup, but I'll just have to become accustomed to it." Another, formerly a teacher in a well publicized school, said, "There is no comparison." Still another reported, "The quietness is startling." The principal commented, "The greatest thing since the school house."

Classroom Size—Through experience we have found that for our purposes the most satisfactory module for use in construction, particularly for secondary housing, is that of eight feet. Rooms are usually twenty-four feet wide by multiples of eight feet in length. We also recognize that although standards of class size are set by scholastic accreditation associations, there can be a wide variation in class size. Therefore it was determined that classrooms should be of a variety of sizes. The structural system selected by the architect was admirably adaptable to requirement.

Student Activity Space—School authorities are becoming more and more aware of the problems steming from compressing pupils into a given space for a specific time under uniform conditions. In the interest of economy in air conditioned structures we have frequently been guilty of producing enormous loft buildings. To give the feeling of space, the campus plan with open corridors and covered walkways was chosen. To create an atmosphere attractive to teen-age students, open courts and a student activity area were provided. To provide in some measure for individual efforts, study carrels and individual science project areas were provided.

Observation of pupils using the student activity areas and courts is convincing. Thus use of the study carrel in conjunction with classroom assignments and individual study indicates its value.

Physical Education—The expansion of the physical education program as well as its nature dictated the inclusion of both boys' and girls' gymnasia with auxiliary classrooms and "team" rooms. In our school system, athletics definitely are considered a part of the instructional program. We were, therefore, desirous of containing facilities for these activities within the major element of the structure, quite naturally taking advantage of such gymnasium facilities as possible.

It will be noted that no auditorium, as such, is included, but both the cafeteria and large gymnasium are provided with stages. This has been the pattern in the six junior high schools and six senior high schools constructed since 1953. It has been continued in two junior high schools under construction and one junior high school and one senior high school on the boards. Reaction of our administrators has been, "Nice to have." "A big nuisance to maintain and schedule." "We don't miss them very much."

Administration—Uniquely, the administrative suite is in a separate building. This, frankly, is an experiment on our part. It was influenced by the feeling that the administrative activity is purely secondary, and not infrequently becomes simply administration for administrator's sake! Communication is carried on by means of the usual public address system and in addition an interphone system connecting each "teacher center."

Here, the idea was probably somewhat overexpanded! There seems to be no great objection on the part of the principal but has been pronounced a "little far to the office" by teachers. With a second classroom building, however, the administrative units will be very well located with reference to academic areas.

Expansion—It was specifically stipulated that provisions for expansion should be made with the least possible revision of the present plant. Thus all basic facilities were planned for the ultimate enrollment of 2500. From this point, it was necessary to plan in reverse, i.e., more or less reduce the ultimate to a point of providing for approximately 1,750 pupils. This entailed room assignment on a temporary basis with mechcanical installations to accommodate future use. For example, the business education program is presently housed in future biological science rooms. An additional classroom building will accommodate mathematics and business in the future. The addition of several activities excluded from the original program has proven the value of planning for a separate additional unit. For example, data processing can be served much more easily.

In General—Suffice it to say that generally the features of the building so well answer our needs that they were incorporated in a second high school just occupied on September 6th and are being used in a third school expected to be occupied September, 1968.

SCHOOLS OF THE MONTH
JAN.-NOV., 1966

PROJECT COSPONSORED BY *NATION'S SCHOOLS* AND THE NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION

E. J. Cooper Senior High School, New Hope, Minnesota (January)
Edison Junior College, Fort Myers, Florida (February)
Campus Elementary School, Union, New Jersey (March)
New Trier West High School, Northfield, Illinois (April)
John H. Reagan High School, Austin, Texas (May)
Mission San Jose High School, Fremont, California (June)
John Bowne High School, Flushing, New York (July)
Warren G. Harding Junior High School, Cedar Rapids, Iowa (August)
John F. Kennedy Junior High School, Eugene, Oregon (September)
Stevens T. Mason Junior High School, Drayton Plains, Michigan (October)
East Central Senior High School, Tulsa, Oklahoma (November)

SCHOOL OF THE MONTH COMMITTEE

Aaron Cohodes, Acting Chairman

New England and Eastern Canada
Shirley Cooper*
Simeon J. Domas
Edward A. Spare

South
Charles E. Chick
Lloyd L. Waite
James A. Anderson

North Central
Harold W. Boles**
Arthur E. Wohlers
Leo E. Buehring

Prairie
George W. Reida
Guy O. Tollerod
M. Gene Coffey

West
Charles D. Gibson
Ivan M. Luman
John H. Hulvey

Ex Officio
Floyd G. Parker
Kenneth R. Widdall
A. L. Beck

*Deceased July 1, 1966.
**Retiring member October 5, 1966.

President A. L. Beck thanked those who had taken part in the preparation of the program, banquet, and other activities relating to the Annual Meeting. He then presented the members of the Board of Directors of the National Council: Dr. Richard Tonigan, President-Elect; Frank Irwin and Robert Guild, who will continue to serve; the new members, Dr. Donald Leu, Dr. Marion Conrad, George Reida, and Dr. Charles Wells; and, the newly elected Executive Secretary, Dr. Kenneth Widdall.

President Beck then expressed his thanks to the Council; presented the gavel to his successor, Dr. Cameron and wished him well.

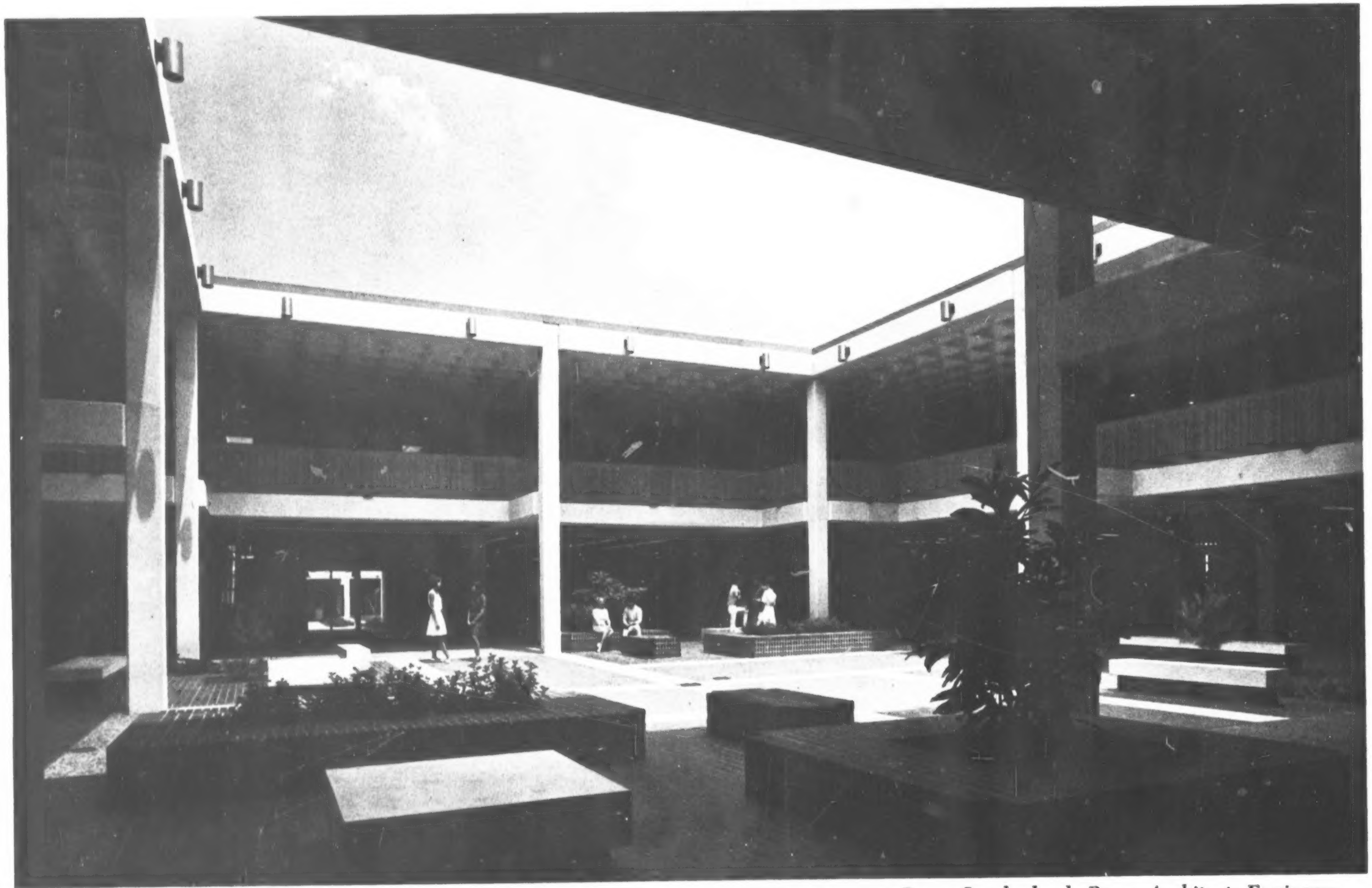
President John Cameron thanked Mr. Beck and called for a show of appreciation for both Mr. Beck and Dr. Darby, Retiring Past President.

President Cameron, President Presiding

"When Al was having trouble getting attention up here, it reminded me of an occasion when I was supposed to be the principal speaker and people were talking and just having a wonderful time as you were. When the chairman got up he kept rapping the table trying to get order and finally when he did he said, 'You folks have enjoyed yourselves long enough, it's time to get on with the program.'"

President Cameron expressed his gratitude for the opportunity to serve, and looked forward to greater strides by the Council with the help of all those who had personally expressed a willingness to serve. He then thanked the Local Arrangements Committee for outstanding services and attractions.

"I now declare the 43rd Annual Meeting of the National Council on Schoolhouse Construction adjourned."



John H. Reagan High School — Page Southerland Page Architects-Engineers

NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION

BYLAWS

AS AMENDED OCTOBER 5, 1966

I. MEMBERSHIP

1. Individuals and professional firms or organizations meeting one of the following classifications are eligible for membership in the Council:
   (a) National, state, regional, provincial, and local public and non-public education officials, and employees whose duties include responsibility for planning educational facilities.
   (b) College and university staff members who teach educational facilities courses, direct educational facilities planning and research, direct or conduct educational facilities surveys, or render educational facilities consultant services.
   (c) Consulting firms normally commissioned on a fee basis by the educational facility owner or his prime consultant are eligible for membership in the Council. These firms are employed to provide professional-technical services for educational facility planning. These firms would include consulting firms such as architects, engineers, educational consultants, and campus planners.
   The consulting firm membership entitles the firm to receive one set of current Council publications without cost. The firm may designate one official representative to participate in the annual meeting. Firm representatives are extended all rights and privileges of regular members other than the privileges of holding elected office and voting in the business affairs of the Council.
   (d) Editors of educational and architectural periodicals regularly devoting considerable space to educational facilities problems.
   (e) All present members of the Council and all who may hereafter be admitted to membership may retain membership subject to compliance with subsection 2.

2. Membership shall terminate upon failure to pay dues for two years. A former member may be restored to membership only upon the payment of dues for the current and the next preceding year and upon eligibility as a new member at the time of restoration.

3. Upon recommendation of the Board of Directors and a majority vote of the members present and voting at any annual meeting, any person who has for ten years been a member in good standing, has reached the age of 60 years, and has retired from the work that qualified him for membership in the Council may become a life member entitled to all the rights and privileges of the Council irrespective of subsection 2.

4. All applications for membership shall be filed with the Executive Secretary. Admission to membership shall be by majority vote of the full membership of the Board of Directors, except that the Board of Directors may in its discretion delegate to the Executive Secretary authority to admit to membership any person or consulting firm who clearly meets the requirements as set forth in these bylaws.

II. OFFICERS

1. The officers shall be a President, a President-Elect, and an Executive Secretary.

(a) The President shall be the executive head of the organization and as such shall perform the usual duties of his office. The term of the President shall be one year, and the office shall be held by the person who served as the President-Elect during the preceding year.

(b) The President-Elect shall perform the usual duties of a vice-president and such other duties as the Board of Directors may assign. His term shall be one year.

(c) The Executive Secretary is the chief administrative officer (non voting) of the National Council on Schoolhouse Construction and shall perform the duties assigned by the Board of Directors. He shall be appointed by and serve at the pleasure of the Board of Directors.

2. All officers except the Executive Secretary and President shall be elected by ballot at the annual meeting, and shall assume office at the conclusion of said annual meeting. The Board of Directors shall, at the first session of each annual meeting, announce the procedures for nominating and electing officers, and these procedures shall be followed unless modified by a majority vote of the members present and voting.

3. In event of vacancy in any office occurring between annual meetings, the Board of Directors may by majority vote fill the vacancy by the appointment of a person to serve until the next annual meeting. If a vacancy extends beyond the next annual meeting, there shall be elected at said annual meeting a person to serve for the remainder of said term.

4. Elected Council officers serve without personal compensation for their conduct of Council business except for necessary travel and subsistence expenses.

III. COMMITTEES

1. There shall be a Board of Directors of nine members. Six members shall be elected to serve for overlapping terms of three years, two to be elected each year. (For the year 1966-67, at the 1966 Annual Meeting there shall be one member elected for a term of one year, one member elected for a term of two years and two members elected for a full term of three years.) The retiring President shall be a member for one year. The President-Elect shall become a member of the Board upon his election to that office. The President shall serve as chairman, and the Executive Secretary as Secretary to the Board.

The Board of Directors shall perform such duties as may be assigned by the Council, and carry on the business of the Council during the interim between meetings. The provisions of these Bylaws applicable to the election of officers and to the filling of a vacancy in any office shall apply to the six elected members of the Board of Directors.

2. There shall be a Research Committee to review, evaluate, and report significant research findings to the membership; to propose research projects which in its judgment should be undertaken, and recommend suitable means whereby each such project should be undertaken and reported; and to do such other things as in its judgment will promote better research and more effective use of research findings in the achievement of the purposes of the Council. This Committee shall broadly represent Council membership and shall consist of five members appointed by the President to serve for overlapping terms of five years. Subcommittees from the membership of the Council may be constituted by this Committee when necessary to carry out its purposes.

3. There shall be a Publications Committee to plan and direct the preparation of manuscripts for publication by the Council and to make recommendations to the Board of Directors for discussion and publication of such manuscripts as the Committee deems worthy of Council sponsorship. This Committee shall broadly represent Council membership and shall consist of five members appointed by the President to serve for over-lapping terms of five years. Subcommittees from the membership of the Council may be constituted by this Committee when necessary to carry out its purpose.

4. There shall be a Professional Activities Committee responsible for reviewing, evaluating, and making recommendations with respect to the preparation of professional workers in the area of educational facilities; the quality and extent of services available in the area of educational facilities at the local, state, provincial, and national levels; the activities of other organizations in the area of educational facilities; and such other matters as in its judgment will improve the quality of educational facilities services. This Committee shall broadly represent Council membership and shall consist of five members appointed by the President to serve for over-lapping terms of five years. Subcommittees from the membership of the Council may be constituted by this Committee when necessary to carry out its purposes.

5. The chairman of each standing committee of the Council, together with the President, the President-Elect, and such other persons as the President may designate, shall constitute the Program Committee of the Council. The President shall serve as chairman.

6. There shall be such *ad hoc* committees and liaison representatives as the Council may direct or the President may determine and appoint.

7. Upon recommendation of the chairman of any standing committee and the approval by the Board of Directors, actual and necessary expenses of the committees and/or subcommittees shall be paid from Council funds.

8. Committee members, while serving on Council committees serve without personal compensation for the conduct of Council business except for necessary travel and subsistence expenses.

IV. FISCAL YEAR AND DUES

1. The fiscal year shall be from July 1 through June 30. Annual regular membership dues shall be $20.00 starting with the 1966-67 fiscal year.

2. Annual Consulting Firm Membership dues shall be determined by the Board of Directors and shall not be less than $100.00.

3. Initial membership in the Council shall be consumated upon payment of the annual membership fee, said fee covering the dues for the fiscal year of the election to membrship.

V. TIME AND PLACE OF MEETINGS

1. The time and place of the regular annual meeting shall be determined by the Board of Directors and shall be announced to the membership at least eighteen months in advance. Time and place of any special general membership meeting shall be announced by the Newsletter in at least two consecutive issues and shall not be less than 30 days after the second general notice to all members. A quorum for the transaction of business at any regular or special meeting of the members shall consist of 51 per cent of the current membership present and voting at the annual meeting of the Council.

2. Regular or special meetings of the Board of Directors shall be announced to the Board members by the President no less than 30 days prior to such meetings.

3. Any group of members may hold a regional meeting in furtherance of the purposes of the Council. Notice of such meeting shall be given to the Executive Secretary in advance. A representative of the regional meeting shall be designated by the committee that arranges said regional meeting to report to the Board of Directors and to the next annual meeting regarding the nature and success of the regional meeting.

VI. CONTRACTS: HOW EXECUTED

1. The Board of Directors, except as in the Bylaws otherwise provided, may authorize any officer or officers, agent or agents, to enter into any contract or execute any instrument in the name of and on the behalf of the Council (corporation), and such authority may be general or confined to specific instances; and unless so authorized by the Board of Directors, no officer, agent, or employee shall have any power or authority to bind the Council by any contract or agreement or to pledge its credit to render it liable for any purpose or to any amount.

VII. CHANGE IN BYLAWS

Changes in these Bylaws may be made at any annual meeting of the Council by a two-thirds majority of the members present and voting, provided that the vote on any proposed change will be postponed for at least twelve hours after introduction of the proposed change unless an earlier vote is assented to by unanimous consent.

ARTICLES OF INCORPORATION

(NON-PROFIT)

These Articles of Incorporation are signed and acknowledge by the incorporators for the purpose of forming a non-profit corporation under the provisions of Act No. 327 of the Public Acts of 1931, as amended, as follows:

Article I.

The name of the corporation is NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION.

Article II.

The purpose or purposes for which the corporation is formed are as follows:

To operate exclusively for charitable, scientific or educational purposes, including but not limited to: (1) making gifts and contributions to one or more organizations (other than organizations testing for public safety) described in Section 501(c)(3) of the Internal Revenue Code of 1954; (2) improving education by influencing planning of educational facilities through (a) the exchange, publication and/or dissemination of current and emerging ideas, concepts and promising practices in educational facilities planning; (b) the identification, completion and diffusion of needed research; (c) the improvement of training programs for educational planing specialists in colleges and universities; (d) the strengthening and promotion of the use of coordination planning services by all affected educational institutions or agencies; (e) the promotion of economy in the design and construction of educational facilities; (3) to do and engage in any and all lawful activities that may be incidental or reasonably necessary to any of the foregoing purposes and to have and exercise all other powers and authority now or hereafter conferred on non-profit corporations under the laws of the State of Michigan.

PROVIDED, HOWEVER, that any references herein to any provision of the Internal Revenue Code of 1954 (herein called the "Code") shall be deemed to mean such provision as now or hereafter existing, amended, supplemented, or superseded, as the case may be.

PROVIDED, FURTHER, that in all events and under all circumstances, and notwithstanding merger, consolidation, reorganization, termination, dissolution, or winding up of this corporation, voluntary or involuntary or by operation of law, the following provisions shall apply:

1. This corporation shall not have or exercise any power or authority either expressly, by interpretation or by operation of law, nor shall it directly

or indirectly engage in any activity, that would prevent this corporation from qualifying (and continuing to qualify) as a corporation described in Section 501(c)(3) of the Code, contributions to which are deductible for federal income tax purposes.

2. No substantial part of the activities of this corporation shall consist of carrying on propaganda, or otherwise attempting, to influence legislation; nor shall it in any manner or to any extent participate in, or intravene in (including the publishing or distributing of statements), any political campaign on behalf of any candidate for public office; nor shall it engage in any transaction defined at the time as "prohibited" under Section 503 of the Code.

3. This corporation shall never be operated for the primary purpose of carrying on a trade or business for profit. Neither the whole, nor any part or portion, of the assets or net earnings of this corporation shall be used, nor shall this corporation ever be organized or operated, for purposes that are not exclusively charitable, scientific or educational within the meaning of Section 501(c)(3) of the Code.

4. No compensation or payment shall ever be paid or made to any member, officer, director, trustee, creator, or organizer of this corporation, or substantial contributor to it, except as a reasonable allowance for actual expenditures or services actually made or rendered to or for this corporation; and neither the whole nor any part or portion of the assets or net earnings, current or accumulated, of this corporation shall ever be distributed to or divided among any such person; provided, further, that neither the whole nor any part or portion of such assets or net earnings shall ever be used for, accrue to, or inure to the benefit of any member or private individual within the meaning of Section 501(c)(3) of the Code.

5. In the event of termination, dissolution or winding up of this corporation in any manner or for any reason whatsoever, its remaining assets, if any, shall be distributed to (and only to) one or more organizations described in Section 501(c)(3) of the Code.

Article III.

Location of the first registered office:

411 Erickson Hall, Michigan State University, East Lansing, Ingham County, Michigan.

Postoffice address of the first registered office is:

411 Erickson Hall, Michigan State University, East Lansing, Michigan.

Article IV.

The name of the first resident agent is FLOYD G. PARKER.

Article V.

Said corporation is organized upon a Non-Stock basis.

(b)

(if upon a non-stock basis strike out paragraph (a) above and fill in the following)

The amount of assets which said corporation possesses is:

*Real property—None.

*Personal property—None.

* (Give description and value—if none, insert "none")

Said corporation is to be financed under the following general plan:

Membership dues, sale of publication, gifts, bequests, devises, loans and leases if real property is acquired.

ARTICLE VI.

The names and places of residence, or business, of each of the incorporators (and if a corporation organized upon a stock-share basis the number of shares of stock subscribed for by each) are as follows:

(At least three required)

(Please type or print following information if possible)

NAMES — RESIDENCE OR BUSINESS ADDRESS — NUMBER OF SHARES

Francis C. Darby, 6401 Linda Vista Road, San Diego, California (County Department of Education)

A. L. Beck, Office of Superintendent of Public Instruction, Old Capitol Bldg. Olympia, Washington

Floyd G. Parker, 411 Erickson Hall, Michigan State University, East Lansing, Mich.

Cleve O. Westby, 175 West State, Trenton, New Jersey (State Dept. of Education)

Richard F. Tonigan, Teachers College, Columbia University, 525 West 120th St., New York, N.Y.

Frank E. Irwin, State Department of Education, 111-B Cordell Hull Building, Nashville, Tennessee

Merle A. Stoneman, Teachers College, University of Nebraska, Lincoln, Nebraska.

ARTICLE VII.

The names and addresses of the first board of directors (or trustees) are as follows:

(At least three required)

NAME — ADDRESS

Francis C. Darby, County Dept. of Education, 6401 Linda Vista Road, San Diego, California

A. L. Beck, Office of Supt. of Public Instruction, Old Capitol Bldg., Olympia, Washington

Floyd G. Parker, 411 Erickson Hall, Michigan State University, East Lansing, Mich.

Cleve O. Westby, State Dept. of Education, 175 West State, Trenton, New Jersey

Richard F. Tonigan, Teachers College, Columbia University, 525 W. 120th St., New York, N.Y.

Frank E. Irwin, State Dept. of Education, 111-B Cordell Hull Bldg., Nashville, Tennessee

Merle A. Stoneman, Teachers College, University of Nebraska, Lincoln, Nebraska.

ARTICLE VIII.

The term of the corporate existence is perpetual.

(If for a limited number of years, then state such term instead of perpetual.)

ARTICLE IX.

(Here insert any desired additional provisions authorized by the Act)

NONE

We, the incorporators, sign our names this 15th day of September, 1965.

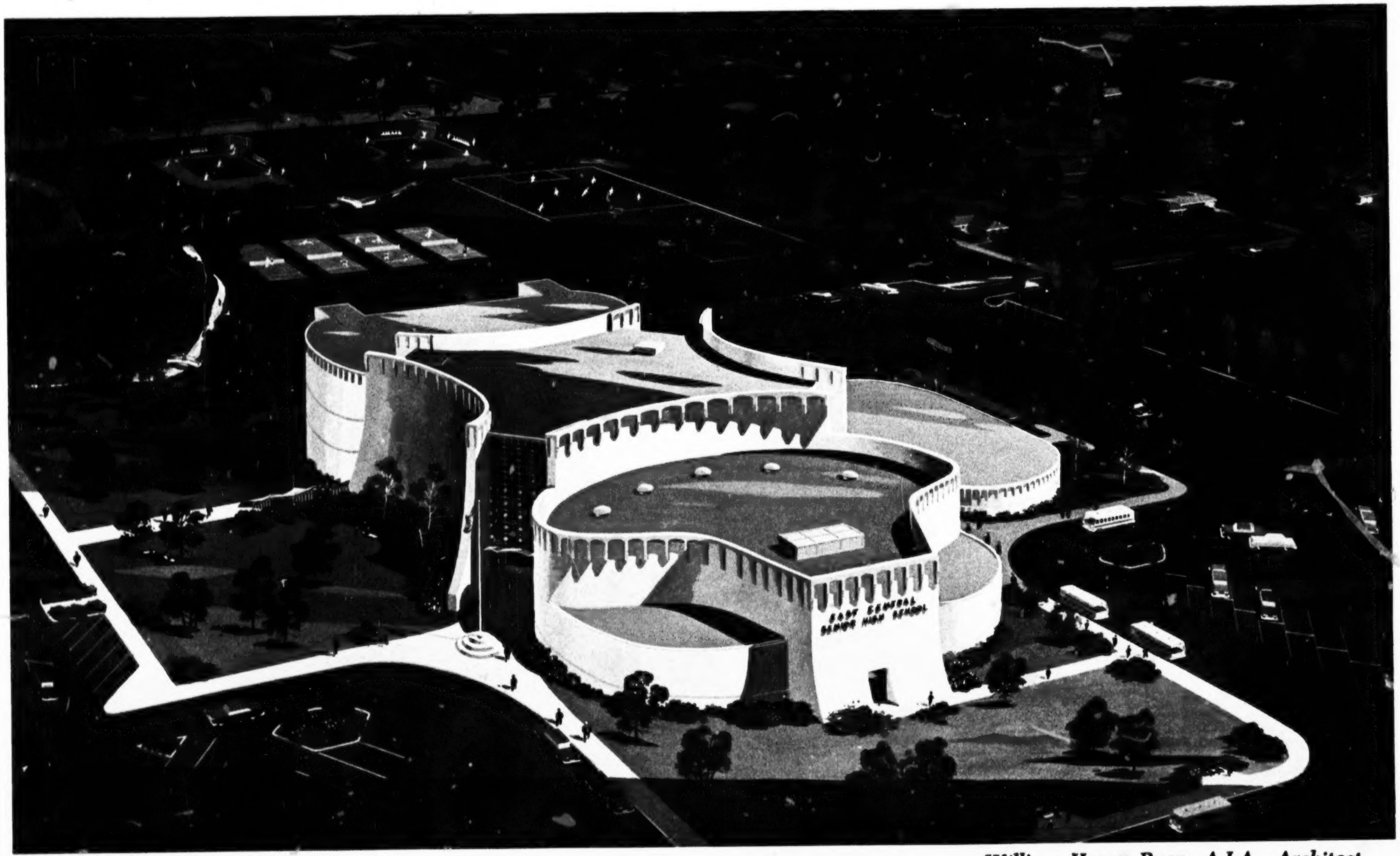
Francis C. Darby	(signed)
A. L. Beck	(signed)
Floyd G. Parker	(signed)
Cleve O. Westby	(signed)
Richard F. Tonigan	(signed)
Frank E. Irwin	(signed)
Merle A. Stoneman	(signed)

State of MICHIGAN
County of INGHAM

(One or more of the parties signing must acknowledge before the Notary)

On this 15th day of September, 1965, before me personally appeared FLOYD G. PARKER, to me known to be one of the persons described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

(signed) Joy B. Wotten
Joy B. Wotten
Notary Public for Ingham County,
State of Michigan
My commission expires, May 8, 1967
(Notarial seal required if acknowledgment taken out of State)


EAST CENTRAL
SENIOR HIGH SCHOOL

East Central High School

William Henry Ryan, A.I.A., Architect

MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF THE NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION*

DENVER, COLORADO

DECEMBER 3-4, 1965

Present at the Board's request were M. Ted Dixon and Merle A. Stoneman.

A. L. Beck was elected Chairman and Floyd G. Parker, Secretary thereof.

Minutes of the Board meetings in Lincoln, Nebraska, October 3, 4, 6, 8, 1965, were unanimously approved.

Selection of an Executive Secretary was discussed by the Board. Secretary Parker reported that a letter, together with the description and requirements for the position, has been mailed to 26 major university placement directors. Chairman Beck agreed to summarize all applications and send copies of the summary to each Board member prior to the February meeting in Atlantic City, New Jersey.

RESOLVED that the Board meet with a limited number of candidates in Atlantic City.

Secretary Parker was directed to purchase 2,000 additional historical brochures for distribution at the Exhibit. Tonigan was directed to prepare a detailed list of materials needed for the Exhibit which Secretary Parker would then fill. Chairman Beck agreed to make a final appointment upon recommendation from Tonigan. Secretary Parker was directed to pay the remainder of the exhibit booth rental fee of $250.00.

The Secretary was directed to report position vacancies in forthcoming issues of the Newsletter.

RESOLVED that plans for refining the accounting structure be scheduled for later action after the selection of an Executive Secretary.

RESOLVED FURTHER than an earlier motion allowing $250.00 for this purpose be rescinded.

The 1966 Annual Meeting to be held October 3-6, 1966 at Rickey's Hyatt House in Palo Alto, California was reaffirmed by the Board.

RESOLVED that the Architect's Exhibit be allowed with an understanding that it be in line with the program there,

RESOLVED FURTHER that an NCSC member in the Palo Alto area and G. W. Reida direct the Architectural Exhibit.

Chairman Beck was authorized to appoint John L'Hote, Chairman of the Local Planning Committee and committee members, Donald Leu, C.

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*Abstracted minutes: complete copies are available to members in good standing on request.

Robert Muth, Charles Wells and Elven Duvall. President-Elect Cameron was appointed to notify the committee of the authorization to make the meeting site selection for the 1967 meeting.

The 1968-1969 Annual Meetings were discussed. A committee of Frank Irwin, Chairman, George Englehardt and Francis Darby was appointed by Chairman Beck to analyze all available information regarding possible sites for the future.

The Secretary was directed to authorize the printer of the N.C.S.C. GUIDE to reprint up to 500 copies of Chapter 10. The Secretary was also directed to inform Mr. C. L. Crouch of the Illuminating Engineering Society who had made the inquiry, that it be understood that this reprinting be done at no cost to the Council and that 1) the material be distributed free of any cost, 2) independent of any advertising, and 3) the Council be given due credit, subject to approval by the Secretary.

Mr. B. M. McLean was declared a life member of the N.C.S.C., subject to ratification at the Annual Meeting. Secretary Parker was directed to send the notification with the life membership card.

RESOLVED that a committee be appointed to sit jointly with A.I.A. in discussing the improvement of educational specifications as requested by Lloyd Waite.

RESOLVED FURTHER that Cleve Westby, A.I.A. Liaison representative be a member of this committee.

Chairman Beck appointed the following to the committee: Westby, Chairman, Charles Wells, Warren Vogt and Harold Cramer.

REPORTS

Secretary Parker reported on the present financial status of the Council. Secretary Parker also reported that all information and data requested by the Internal Revenue Service has been forwarded and receipt acknowledged.

Title IV Prospectus prepared by Merle Stoneman and Director Tonigan was presented. It was reported that the letter of intent had been submitted to the U. S. Office of Education. Stoneman and Tonigan were directed to continue work on the Prospectus. They were also directed to set up a meeting with USOE research personnel to discuss the Prospectus in detail.

M. Ted Dixon, Chairman of the Professional Activities Committee, reported that the breakfast arrangements for related organizations in Atlantic City were nearly completed. He indicated that he would inform the Board members when final details are confirmed. It was noted that Board members might attend at their own expense.

C. W. McGuffey, Chairman of the Publications Committee, reported by letter that the Maintenance and Operation Writing Sub-Committee, chaired by Kenneth Widdall, intends to meet in Atlantic City.

Wallace Strevell, Chairman of the Research Committee, reported by letter that the Abstract Service is now in full operation. He further reported that the project, "Basic Research for School Plant Planning" is being developed by the Research Committee.

Chairman Beck reported that the National Association of Accrediting Organizations had requested names of Council members to serve on a committee to revise evaluative criteria for secondary schools. Beck was authorized to appoint the following persons, and to notify NAAO of this action:

J. L. Pierce
Lloyd Waite
Aubrey Calvert
Dwayne Gardner
Robert Hemberger
David Hutchinson
Richard Featherstone
George W. Reida
W. D. McClurkin

RESOLVED that the Board will meet in late June probably in Washington, D.C.

RESOLVED FURTHER that Chairman Beck will determine the date and place and notify Board members.

MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF THE NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION*

ATLANTIC CITY, NEW JERSEY

FEBRUARY 12-13, 1966

A. L. Beck was elected Chairman and Floyd Parker, Secretary thereof.

The minutes of the December 3-4, 1965 meeting in Denver, Colorado were accepted.

Secretary-Treasurer's Report

It was reported that 46 individual membership applicants had been received and processed since the end of the annual 1965 meeting in Lincoln, Nebraska.

The Secretary reported that 71 consulting firm applications had been received, checks deposited, and acknowledgment letters sent to the firms with copies sent to the nominators.

The Secretary reported that communication dated January 21, 1966 was received from the Internal Revenue Service indicating that the Council has been declared eligible as a tax exempt educational corporation.

A cash balance of $15,938.75 was reported.

The report of the Secretary-Treasurer was accepted.

RESOLVED that all firm applicants for associate membership status in the Council approved by the Board of Directors prior to July 1, 1966 be issued membership to July 1, 1967,

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*Abstracted minutes: complete copies are available to members in good standing on request.

RESOLVED FURTHER that the procedure for nominating a firm applicant remain a function of the state or province chairman with the exception that the Secretary be empowered to sign as a nominator in such instances where the state chairman's position may be jeopardized by nominating a specific architectural or engineering organization,

RESOLVED FURTHER that the Board pass on each applicant as previously stated in the Council Bylaws as amended in Lincoln, Nebraska on October 5, 1965,

RESOLVED FURTHER that there be no official quota in any state or province, rather that breadth of geographical distribution be emphasized,

RESOLVED FURTHER that the general firm membership quota for the United States and Canada be determined as being with the range of 500-600 members, subject to discretion of the state and province membership chairman as well as continual review of the Board of Directors,

RESOLVED FURTHER that firm membership terms as individual membership terms run form July 1 through June 30 of each fiscal year.

RESOLVED that the Palo Alto planning committee be authorized to collect a registration fee, the amount to be determined by cost estimations.

RESOLVED that Washington, D.C. be declared as the host city for the NCSC 1968 Annual Meeting.

RESOLVED that the chairman be authorized to call a meeting of the Board of Directors on March 25-26, 1966 with the site to be determined,

RESOLVED FURTHER that the chairman be authorized to call a Board meeting on June 23, 24, 1966 in Washington, D.C.

RESOLVED FURTHER that the first meeting of the Board be one day prior to the opening of the 1966 Annual Meeting in Palo Alto, California.

RESOLVED that further interviewing for candidates for Executive Secretary take place at the next Board meeting.

RESOLVED that $1,200 be allocated to be used by the Maintenance and Operation Writing Subcommittee for an April, 1966 meeting.

RESOLVED FURTHER that $750 be allocated for the Secondary Plant Planning Writing Subcommittee to meet,

RESOLVED FURTHER that $300 be allocated for the activities of the Higher Education Writing Subcommittee.

RESOLVED that members of all authorized standing committees and working committees as required by the chairmen of said standing committees be reimbursed per diem expenses for two days prior to the 1966 Annual Meeting for necessary activities pertinent to the objectives of said committees.

RESOLVED that the joint committee be given full support, approval and encouragement of the Board regarding the project of developing jointly with AIA a comprehensive and rational system of procedures for educational specifications.

The meeting was adjourned at 5:00 p.m., Sunday, February 13, 1966.

MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF THE NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION*

WASHINGTON, D.C.

MARCH 25-26, 1966

A. L. Beck was elected Chairman and Floyd Parker, Secretary thereof.

The minutes of the February 12-13, 1966, meeting in Atlantic City, New Jersey, were accepted with the following corrections: (1) paragraph three on page two and the accompanying six resolutions regarding AIA special committee action be deleted. The following resolutions were inserted based upon the recommendations made by special committee members Tonigan, Cameron, and Westby, who had been appointed by Chairman Beck to study the concerns brought up by the AIA regarding the fixed limitations prescribed for each state and province.

RESOLVED that the individual architect and architectural firm membership quota for the United States and Canada for the year 1966-67 be established within the range of 500-600 members subject to continual review by the Board of Directors,

RESOLVED FURTHER that applications for associate membership in the Council from individual architects or firms of architects be dated on the date of receipt of each of such application by the state or province membership chairmen, or other officials authorized to receive such applications, and forwarded along with the membership fee, to the Secretary of the Council within ten days thereafter, with a report of the number of such applicants being forwarded to the Council membership chairman,

RESOLVED FURTHER that within the quota established for the year 1966-67, the Board of Directors act upon applications for associate membership in the Council from individual architects or firms of architects in the order in which they were received from the state or province membership chairmen, or other officials authorized to receive such applications,

RESOLVED FURTHER that duly appointed state and province membership chairmen, the Council membership chairman, and members of the Board of Directors be authorized to receive applications for associate membership in the Council,

RESOLVED FURTHER that the Secretary of the Council promptly notify successful applicants for associate membership into the Council within ten days after approval by the Board of Directors,

RESOLVED FURTHER that fees paid by associate members approved for membership by the Board of Directors prior to July 1, 1966, shall constitute full payment of such membership through June 30, 1967.

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*Abstracted minutes: complete copies are available to members in good standing on request.

RESOLVED FURTHER that the Secretary of the Council notify in writing any applicants for associate membership whose application was denied for the reason that the quota for the year had been filled, returning all fees submitted by the unsuccessful applicant,

RESOLVED FURTHER that no separate list of architects or architectural firms that have become members of the Council be published or distributed,

RESOLVED FURTHER that the President-Elect of the Council be authorized to represent the Board of Directors in reconciling with representatives of the American Institute of Architects, any minor points of disagreement.

BE IT FURTHER RESOLVED that the Secretary of the Council furnish the Executive Directors of the American Institute of Architects with a copy of this section,

RESOLVED FURTHER that the Board of Directors of the AIA be requested to endorse the procedures adopted by the Board of Directors of the NCSC for associate memberships for architects and architectural firms in the Council,

RESOLVED FURTHER that the Board of Directors of the AIA be requested to help explain in its publications and otherwise, policies relating to associate membership by architects and architectural firms into the NCSC.

RESOLVED that all organization memberships received be accepted on an informal basis for formal action by the Board on May 20-21, 1966,

RESOLVED FURTHER that all organization members accepted be sent complimentary copies of the *Guide*, the 1965 Proceedings, and the 1965 Directory.

RESOLVED that the Council encourage cooperation with architectural engineering and planning professional organizations and associations within the United States and Canada and wherein individual and firm members of such organizations and associations qualify, their applications for associate membership in the Council be considered by the Board of Directors in the order in which they are received by the state and provincial membership chairmen, or other officials authorized to receive such applications.

RESOLVED that the NCSC Board pledge its continued support to the propose encompassed in the prospectus prepared by Dr. Strevell in concert with the officers and Board,

RESOLVED FURTHER that President Beck appoint Tony Adinolfi to designate a committee to meet with Mr. Howe, U. S. Commissioner of Education, to discuss (1) educational facilities problems, (2) support for U. S. Office of Education increased activity in the field of education, (3) concern for application of space age knowledge to the total educational problems of the country, and (4) confirmation of NCSC's position of leadership in the educational facilities field.

RESOLVED that Arthur Chapman be declared a life member of the Council with the benefits and privileges as defined in the Bylaws; this action subject to approval by the membership at the next annual meeting of the Council.

President Beck reported that receipt of an additional $5,000 planning grant for the Council; such funds deposited and dispersed by the San Diego County Board of Education.

RESOLVED that Dr. Kenneth Widdall be appointed Executive Secretary of the National Council on Schoolhouse Construction effective July 1, 1966, at an annual salary of $20,000,

RESOLVED FURTHER that Secretary Parker present a letter of official appointment to Dr. Widdall,

RESOLVED FURTHER that the announcement of the appointment be presented to the membership in the next issue of the Council Newsletter on April 11, 1966, to be followed by release to all news bureaus and appropriate organizations,

RESOLVED FURTHER that Darby and Widdall investigate fringe benefits for the Executive Secretary and secretarial staff with such information to be presented to the Board for action on May 20-21, 1966,

RESOLVED FURTHER that Dr. Widdall be authorized to attend the next meeting of the Board on May 20-21, 1966, in San Diego, California, with travel and subsistence expenses being allocated by the Council.

RESOLVED that Board members individually submit criteria for the selection of permanent Council headquarters to President Beck in advance of the May 20, 1966, meeting,

RESOLVED FURTHER that Secretary Parker request suggestions from the membership regarding permanent headquarters of the Council in the April, 1966, Newsletter.

RESOLVED that the 1968 Annual Meeting of the Council be held in Washington, D.C., on October 7-10,

RESOLVED FURTHER that Cameron be named Chairman of a local committee to select the hotel headquarters for the 1968 meeting.

RESOLVED that the following be placed on the agenda for the May 20-21, 1966, meeting:

(1) fringe benefits for executive secretary and staff
(2) determination of criteria for permanent Council headquarters
(3) possibility of NCSC becoming an allied organization with AASA
(4) cost of financial audit by CPA
(5) formal approval action for organization memberships
(6) quantity discount rate for *Guide*
(7) supplement for Directory
(8) official resignation of Secretary Parker effective June 30, 1966
(9) booth at ASBO convention

The meeting was adjourned at 5 p.m. on March 26, 1966.

MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF THE NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION

SAN DIEGO, CALIFORNIA

MAY 20-21, 1966

President Beck submitted the agenda which was approved.

On motion by Cameron, seconded by Darby, and unanimously carried the minutes of the March 25, 26, 1966, meeting in Washington, D.C. were accepted with the following corrections:

1) Amend resolution 1, page 1, to read: "RESOLVED that the individual Architects and architectural firms membership quota for the United States and Canada be established without limitation subject to continual review by the Board of Directors."
2) Amend resolution three, page two, to read: "RESOLVED FURTHER that the Board of Directors act upon applications for associate membership in the Council from individual architects or firms of architects in the order in which they were received from the state or province membership chairman, or other officials designated—authorized to receive such applications."
3) Amend resolution 7, page 3, to read: "RESOLVED FURTHER that the Secretary of the Council promptly notify in writing any applicant for associate membership whose application for any reason is denied, returning all fees submitted by the unsuccessful applicant."
4) Amend resolution 8, page 3, to read. "RESOLVED FURTHER that no separate list of architects or architectural firms that become members of the Council be published or distributed; however, listing of Council members may be made on the basis of regular members and associate members."

A report of the financial condition of the Council was made by Secretary Parker. As of May 17, 1966, Council assets included:

Checking Account balance—First National Bank of East Lansing, Michigan	$ 3,020.96
Savings Account—First National Bank of East Lansing, Michigan	19,468.93
University Account Number 31-3881	1,127.22
Accounts Receivable	1,559.93

Discussion followed regarding the original prospectus for a major grant from the U. S. Office of Education developed by Dr. Stoneman and Dr. Tonigan. Tonigan and Stoneman were instructed by Chairman Beck to develop a supplement to the original prospectus which would further clarify the budget, concern relationships, identify specific research and denote alternate possible facility arrangements.

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*Abstracted minutes: complete copies are available to members in good standing on request.

RESOLVED that all organization applications received to this date be formally accepted as consulting firm members of the Council and that all such members be formally notified. The Secretary was authorized to list all organization members in the next issue of the Council *Newsletter*.

RESOLVED that Mr. R. W. Zimmerman, CPA, in Lansing, Michigan, be hired to conduct the audit of the financial records of the Council accounts at a fee not to exceed $200.

After general discussion of the possible AASA affiliation with the Council, Director Cameron was appointed to investigate this topic further and to present it for discussion at the Annual Meeting in October.

RESOLVED that the NCSC establish liaison with the Department of Audio-visual Instruction.

Secretary Parker was authorized to contact Dr. Anna L. Hyer, Executive Secretary of the DAVI, 1201 Sixteenth Street, N. W., Washington, D.C. to inform her of the liaison affiliation. It was also agreed that the two organizations should exchange publications.

RESOLVED that the Board of Directors extend its appreciation to Secretary Parker for his years of service. It was agreed that this was the last meeting of the Board of Directors for which Secretary Parker was to feel responsible for the development of the minutes and the proper written action of the Board.

RESOLVED FURTHER that Secretary Parker continue to serve as Secretary-Treasurer of the Council and a member of the Board of Directors through the 1966 annual meeting at Palo Alto, California.

RESOLVED that no discount structure be implemented at present.

RESOLVED that a directory supplement not be prepared at this time. Secretary Parker was requested to list all new members in the next issue of the Newsletter.

RESOLVED that Dr. Charles Foster, Executive Secretary of the American Association of School Business Officials be sent by Secretary Parker, a letter expressing appreciation for the invitation to lease a booth at the next annual meeting of the ASBO. Secretary Parker was directed to indicate Board opinion that this added activity should not be attempted until after the Executive Secretary takes office.

RESOLVED that the Executive Secretary write a personal letter to each Council member who is now in category "C" (see membership section in Bylaws) to advise the individual of his option of membership.

RESOLVED that Secretary Parker write to Mr. Mario Celli, indicating that he is not entitled to individual membership in the Council by virtue of the fact that he is a practicing architect. Further, that he is entitled to associate membership if he so desires to apply for such membership.

Dr. Ted Dixon, Chairman of the Professional Activities Committee, reported on the membership of the Council at the present time. He indicated that from March 13, 1966, the Council has increased from 71 organization members to a total on May 10, 1966, of 151. It was agreed that a goal of

200 memberships should be attained previous to the Palo Alto meeting in October. Dr. Dixon reported that a breakfast session would be scheduled for all state membership chairman at the Annual Meeting.

RESOLVED that the following fringe benefits schedule be adopted for Executive Secretary Widdall:

Annual Holidays—9 days;
Sick Leave—15 days, accumulative to 90 days;
Vacation—15 days annually;
Travel—the general NCSC travel regulation would apply
Social Security benefits—requiring $275 per year

RESOLVED the Board authorize Executive Secretary Widdall to put into force the additional fringe benefits he desires for the position, exclusive of moving, holiday, sick leave and vacation. The total fringe benefit package is not to exceed 12% of his annual salary and shall include social security.

RESOLVED that Executive Secretary Widdall be authorized to hire competent secretarial and clerical personnel, comparable to the present staff with similar employment conditions.

RESOLVED that Kenneth Widdall report to the position of Executive Secretary of NCSC on July 18, 1966.

Extended discussion developed during the meeting of the Board of Directors regarding the permanent headquarters of the Council, Resolutions from the Great Lakes School Plant Regional Group and the Eight States School Plant Regional Group were read to the Board. Both resolutions requested that the Board allow at least one year to provide sufficient opportunity for the membership and the Board to fully consider the logical location for the national headquarters site. Statements of criteria were presented by several Board members and regional organizations. These were fully considered by the Board in their deliberations regarding a permanent site for the Council. Director Tonigan presented several Chamber of Commerce requests and University requests for the permanent site location of the Council.

RESOLVED that the office of the National Council on Schoolhouse Construction move from the present College of Education quarters to 317 Manly Miles Building on the Michigan State University Campus.

RESOLVED FURTHER that such location of the headquarters be carried out for the next year or until such time as a permanent site can be determined.

RESOLVED FURTHER that President Beck, Secretary Parker, and Executive Secretary Widdall arrange for the necessary quarters, for the office furniture and equipment and the actual move to such quarters.

RESOLVED that Secretary Parker consolidate and revise the summation of the criteria as presented by Chairman Beck for the permanent headquarters of the NCSC and that such criteria be presented in the June 1966 *Newsletter.*

RESOLVED FURTHER that such criteria be presented for formal discussion at the Annual Meeting in October.

Director Cameron reported that he has designated the following persons to assist him in the selection of a hotel site for the 1968 Annual Meeting to be held in Washington, D.C.: Les Welsh, John Riecks, and Thomas Gwyn. He further reported that the Sheraton-Park Hotel and the Marriot Motor Lodge had been visited and that both have submitted proposals to his committee. The committee will select the hotel and report this to the Board at the October Meeting.

RESOLVED that Director Cameron appoint a local planning committee for the 1968 Annual Meeting.

Secretary Parker agreed to assist Executive Secretary Widdall in every way possible in locating family housing and making such other arrangements for his move to East Lansing, Michigan in August. The Board of Directors generally agreed that Parker and Widdall should work together to make the move of the office from the Education Building to the Manly Miles Building as smooth as possible and that both individuals work cooperatively to keep the activities of the Council progressing normally.

The meeting was adjourned at 5 p.m. on May 21, 1966.

MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF THE NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION*

PALO ALTO, CALIFORNIA

OCTOBER 2-7, 1966

RESOLVED that the minutes of the May 20-21, 1966 meeting of the Board of Directors held in San Diego, California be accepted with the following corrections:

1. Amend resolution 1 (one) on page of 5 to read: "RESOLVED that the following fringe benefits schedule be adopted for the Executive Secretary Widdall:

Annual Holidays	9 days;
Sick Leave	15 days, cumulative to 90 days;
Vacation	15 days annually."

2. Amend resolution 2 on page 5 to read: "RESOLVED that the Board authorize Executive Secretary Widdall to put into force the additional fringe benefits he desires for the position, exclusive of

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*Abstracted minutes: complete copies are available to members in good standing on request.

moving, holidays, sick leave and vacation, the total fringe benefit package is not to exceed 12% of his annual salary and shall include social security employer premiums."

3. Amend resolution 4 on page 5 to read: "RESOLVED that Kenneth Widdall report to the position of Executive Secretary of NCSC on July 18, 1966 or as soon thereafter as possible."
4. Amend resolution 1 (one) on page 6 to read: "RESOLVED that the office of the National Council on Schoolhouse Construction move from the present College of Education quarters to 317 Manly Miles Building on the Michigan State University Campus.
   RESOLVED FURTHER that such location of the headquarters in the East Lansing area be until such time as a permanent site can be determined but in no event shall it be moved within a period of one year."

RESOLVED that Dr. Wallace Strevell be reimbursed $16.00 for personal expenses incurred in NCSC abstractors breakfast.

Following Board discussion, President Beck instructed the Executive Secretary to bill NCSC membership for 1967-68 annual dues during months of May and June 1967, dues for 1967-68 being payable as of July 1, 1967.

RESOLVED that a $10.00 Registration Fee be assessed NCSC members and non-members (guests of NCSC) and a $7.00 Registration Fee be assessed wives participating in the Activities for the Ladies as outlined in the Program for the Forty-Third Annual Meeting of the National Council on Schoolhouse Construction,

RESOLVED FURTHER that the Local Arrangements Committee for the 1966 Annual Meeting be authorized to pursue the Program of Activities as outlined,

RESOLVED FURTHER that the following fee schedule be adopted:

$10.00	NCSC member registration
$10.00	NCSC guest registration
$ 7.00	Ladies' registration
$ 3.00	NCSC Luncheon ticket
$ 6.00	NCSC Banquet ticket

President Beck appointed Tonigan to continue to receive invitations from members regarding a permanent headquarters site for NCSC.

President Beck appointed Cameron and Darby to submit recommendations regarding Travel and Subsistence Regulations. (Subsequently amended to place responsibility on the Executive Secretary to review such regulations and report findings to the Board of Directors.)

RESOLVED that the following BOARD ORGANIZATIONS be presented to NCSC membership meeting in General Session in keeping with Article VII of National Council on Schoolhouse Construction Bylaws.

President, President-Elect, Past President and six Directors to be elected as follows:

One for one year

One for two years and
Two for three years and
in subsequent years, two members be elected to the Board of Directors for terms of three years each.

RESOLVED FURTHER that Irwin and Guild modify Article II of Bylaws for action by the membersheip in keeping with the above Board resolution.

RESOLVED that sites for NCSC Annual Meetings be selected five years in advance of the meeting date and that the local arrangements committee chairman be appointed by the Board of Directors at a time not less than four years in advance of the Annual Meeting for which he will serve as local arrangements committee chairman.

RESOLVED that Memphis, Tennessee be the site of the 1969 Annual Meeting.

RESOLVED that Felix Oswalt be appointed to serve as Local Arrangements Committee Chairman for the 1969 Annual Meeting.

RESOLVED that the Board of Directors reaffirm its endorsement of the presentation of the DEVELOPMENT CONCEPT STUDY FOR A NATIONAL EDUCATIONAL FACILITIES PLANNING CENTER and the Executive Secretary be assigned the responsibility of following the status of the application and the original prospectus for a NATIONAL EDUCATIONAL FACILITIES PLANNING CENTER as submitted December 16, 1965,

RESOLVED FURTHER that the establishment of a NATIONAL EDUCATIONAL FACILITIES PLANNING CENTER be designated as a first priority project by the Board of Directors of the National Council on Schoolhouse Construction.

RESOLVED that the Board of Directors reaffirms the Board's submission to the office of Civil Defense of a PROPOSAL BY THE NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION FOR A SURVEY OF STATE PRACTICES IN SCHOOL CONSTRUCTION,

RESOLVED FURTHER that the Executive Secretary communicate the interest of the Board of Directors of NCSC in conducting Phase II—CONCLUSIONS AND RECOMMENDATIONS OF A SURVEY OF STATE PRACTICES IN SCHOOL CONSTRUCTION for the purpose of determmining a practical application of Phase I Survey Data based on stated objectives as established by the U. S. Department of the Army, Office of Civil Defense,

RESOLVED FURTHER that the Executive Secretary be authorized by the Board of Directors to investigate with appropriate personnel of the Office of Civil Defense the feasibility of NCSC conducting a program of architectural competition in conjunction with the American Institute of Architects. Information relative to said project to be presented by the Executive Secretary to the Board of Directors for appropriate action.

Dr. Cleve Westby, Chairman of the Educational Specifications Committee presented a progress report. Chairman Westby requested assistance in securing funding essential to the success of the project. The Board of Directors directed the Executive Secretary to investigate funding possibilities.

Dr. Wallace Strevell, Chairman of the Research Committee submitted two reports to the Board. Two releases of the Abstract Service have been made to date; material has been compiled for a third release and there exists an ample supply of additional material available for processing. Contract terms with USOE having been satisfied, a need for necessary funding of further abstract service activity was expressed.

Chairman Strevell presented a status report on the Information Clearinghouse Proposal as submitted by NCSC through Dr. Strevell to USOE. It is anticipated that another invitation to submit project proposals will be issued in late 1966 by USOE at which time Dr. Strevell will act immediately to undertake the revision of the proposal and resubmit same to USOE.

Dr. Arthur Wohlers reported on the status of a proposal for a Research Stimulation Seminar jointly sponsored by NCSC and The Ohio State University as submitted by Dr. Wohlers to USOE; currently awaiting decision of USOE.

RESOLVED that NCSC underwrite the expense of printing and distributing Volumes III through VII of the Abstract Service; the cost not to exceed $1,000 exclusive of printing and mailing costs.

RESOLVED FURTHER that NCSC reaffirms its: (1) continuing interest in the Clearinghouse Proposal and (2) the expressed need for services on a nationwide basis for a School Facilities Clearinghouse similar to those established for many of the academic disciplines and special services. NCSC further expresses its keen disappointment in not having a Clearinghouse approved by USOE serving the entire field of School Facilities Planning.

RESOLVED that the National Council on Schoolhouse Construction Bylaws be amended as attached.

The Executive Secretary was instructed to review Travel and Subsistence Regulations in light of his experience and in relation to those of other organizations and recommend changes in NCSC regulations to the Board of Directors.

The Executive Secretary in the next Newsletter will advise all members that dues shall be paid in United States currency or with currency at existing rate of exchange as established by the United States Treasury at the time of payment.

RESOLVED that the following resolution be mailed by night letter to Commissioner Harold Howe II of the United States Office of Education:

Dear Commissioner Howe:

At the request of the Board of Directors meeting in official session at the Forty-third Annual Meeting of the National Council on Schoolhouse Construction, Palo Alto, California, the following resolution is respectfully brought to your attention:

RESOLVED:

That the National Council on Schoolhouse Construction, the only major professional organization totally devoted to planning educational facilities and study of the effect of physical environment on learning, reiterates its position that there exists a national demand and need for an information Clearinghouse specializing in School Plant.

Economy to taxpapers in establishing an Information Clearinghouse that will promote both functional and economically operable facilities would justify action on this ever increasing problem.

The National Council on Schoolhouse Construction officially and through the abundant human resources of its professional membership is prepared to sponsor and conduct the basic operations of such a National Clearinghouse.

Respectfully,
Kenneth R. Widdall
Executive Secretary
National Council on Schoolhouse Construction

Dr. Ted Dixon, Chairman of the Professional Activities Committee, submitted a status report. Membership was reported at 709; 514 individual members and 195 associate members. It was determined that Dr. Dixon in meetings with the State Membership Chairman initiate preliminary ground work for a 60 Day Membership Campaign immediately following the 1966 Annual Meeting. He would have sufficient applications printed at Palo Alto and mail same from his office to expedite the program.

Dr. Carroll McGuffey, Chairman of the Publications Committee reported on the activities of several writing subcommittees and reviewed his plans for conducting the Second General Session dealing with the revision of the *Guide*.

Dr. Kent Stewart was confirmed as Chairman of the *Guide* Revision Committee. Other appointments to the committee will be made later by the Publications Committee. Subsequent to the verbal report given by Chairman McGuffey a written request for NCSC funding was submitted to the Board.

Funding requests for specific projects under the jurisdiction of the Publications Committee are as follows:

Secondary School	$1,342	(one meeting)
Maintenance and Operations	1,369	(one meeting)
Guide Revision	1,386	(one meeting)
Publications Committee	710	(one meeting)
	$4,807	

Dr. McGuffey reported the anticipated publication date of the new *Guide* to be 1969.

Dr. Stephen Knezevich of ASA at Board invitation discussed numerous aspects of possible NCSC affiliation with AASA. Several areas of discussion were:

AASA Convention relationship
- A. Program participation
- B. Program listing
- C. Hotel accommodations priorities (rooms and meetings)
- D. Architectural Exhibit

National Council of Administrative Associations

Autonomous operations
- Effective date
- Procedures
- General concepts
- Related topics

RESOLVED that the Board of Directors introduce to the floor the proposal that the National Council on Schoolhouse Construction affiliate in an allied relationship with the American Association of School Administrators.

R. Arnold Tjomsland, Chairman of the Nominating Committee met with the Board for a briefing on the offices and Board positions to be filled.

Executive Secretary was requested to revise 1966-67 Budget in light of Board Discussion.

Thursday, October 6, 1966

RESOLVED that the 1966-67 Proposed Budget be adopted subject to specific restrictions imposed regarding expenditures in the area of committee activity, Board meetings and Newsletter publications, such restrictions to be removed by the President with due cause.

RESOLVED that the Executive Secretary be directed to process associate membership applications in a manner similar to that used in the processing of individual membership applications.

All associate membership applications (45) received since San Diego meeting of the Board are unanimously approved by the Board of Directors on recommendation of Executive Secretary.

RESOLVED that President Beck appoint a Headquarters Site Selection Committee from the Board to screen the three areas of Denver, Michigan-Ohio and Washington, D.C. and other sites when evidence indicates consideration should be given.

President Beck appointed Tonigan, Cameron and Widdall; Tonigan to serve as Committee Chairman.

RESOLVED that the Executive Secretary shall submit to the Board of Directors a proposed 1967-68 Budget by February 1, 1967.

RESOLVED that the election of officials of NCSC by the total membership present as recorded during the Fourth General Session be confirmed and said membership of the Board of Directors be duly constituted being consistent and complying with all provisions as stated in the Bylaws of the National Council on Schoolhouse Construction October 7, 1966.

RESOLVED that President Cameron shall serve as Chairman of the Board of Directors 1966-67.

RESOLVED that Executive Secretary Widdall shall serve as Secretary to the Board of Directors meeting in Executive Session 1966-67.

On motion by Tonigan, seconded by Beck, and unanimously carried that the Executive Secretary to be reemployed for 1966-67 under the same conditions and for the same purposes with the agreement that his status be clarified for the 1967-68 fiscal period at the meeting of the Board of Directors meeting in Atlantic City February, 1967.

President Cameron extended a warm welcome to new members of the Board: Dr. Donald J. Leu, Dr. Marion J. Conrad, George W. Reida and Dr. Charles Wells, Jr.

Mr. Aaron Cohodes, Chairman of the School of the Month—School of the Year Committee submitted a status report to the Board. Following discussion it was agreed that Cohodes would submit his written recommendations to President Cameron for future Board consideration.

RESOLVED that the President of NCSC appoint a School of the Month Procedures Committee to review the School of the Month—School of the Year Program and submit recommendations to the Board of Directors at the February meeting of the Board.

President Cameron appointed Conrad Chairman of the School of the Month Procedures Committee with authority to select other members of the Committee.

Board discussion on permanent headquarters site. Leu submitted a specific proposal with the comment that a decision must be reached without further delay and that a written statement outlining provisions from Michigan State would be forthcoming shortly. If the interests and needs of the National Council, the Executive Secretary and office personnel can be better served elsewhoere NCSC members at Michigan State would fully support such action.

Leu Proposal:

1. Executive Secretary be employed by the University on a small part time basis.
2. Executive Secretary to enjoy faculty status.
3. Executive Secretary to assume a specific staff relationship with University without tenure.
4. Other relationship possibilities to be reviewed.
5. University to provide graduate student assistants—one to be assigned this year.

A highly formalized invitation would not be submitted by Michigan State, but the University welcomes NCSC to stay on Campus if the Council chooses to remain.

Based on reports and recommendations of the Headquarters Site Selection Committee it was tentatively agreed that a decision on NCSC Headquarters Site would be made at the meeting of the Board in Atlantic City in February, 1967.

RESOLVED that the Site Committee recommendations be accepted through 1970 and that the 1971 Annual Meeting site recommendation be held in abeyance until the membership can be advised of the 1970 Annual Meeting site through the "Newsletter"; a decision relative to the 1971 Annual Meeting site will be made at the February meeting of the Board.

President Cameron requested Irwin to continue to serve as Annual Meeting Site Selection Committee Chairman. Conrad and Wells were appointed by President Cameron to serve on that committee.

President Cameron appointed Leu to serve as Chairman of the Organizational Relationships Committee. Beck and Reida were appointed to serve on that committee. A Committee report will be made to the Board at the February meeting.

President Cameron appointed Wells to serve as Chairman of Architectural Exhibits Committee. Reida and Guild were appointed to serve on that committee.

President Cameron appointed Tonigan to serve as Chairman of the Special Developmental Projects Committee. Conrad and Irwin were appointed to serve on the committee.

Memphis Annual Meeting will be held October 2-5, 1969.

On motion by Conrad, Seconded by Beck and unanimously carried the Executive Sessions of the Board of Directors meeting at Palo Alto, California adjourned at 11:00 a.m.

MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF THE NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION*

COLUMBUS, OHIO

JANUARY 14-15, 1967

RESOLVED that the minutes of the October 2-7, 1966 Meeting of the Board of Directors held in Palo Alto, California be accepted as presented.

RESOLVED that the agenda as amended be adopted with provisions for flexibility as adjudged.

Chairman Tonigan of NCSC Headquarters Site Selection Committee reviewed committee activity.

RESOLVED that the Headquarters Site Selection Committee will be responsible for finalizing agreements with representatives of the site selected by the Board of Directors.

RESOLVED that the Board of Directors authorize the Executive Secretary to develop a series of practices to provide for the investment of Council funds and that the Executive Secretary, with the concurrence of the President, invest Council funds in Federally insured investments only.

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*Abstracted minutes: complete copies are available to members in good standing on request.

The Executive Secretary submitted a publications sales report from 1964 to 1966.

RESOLVED that the Executive Secretary develop a plan for the discount sale of the 1960 publication *Planning Facilities for Higher Education.*

RESOLVED that the 3rd printing of the *Guide for Planning School Plants,* 1964 Edition be made available for sale at $7.50 per copy.

RESOLVED that 1,500 copies of the *1966 Annual Proceedings* (to be condensed and entitled *Schools—Planned for the Community*) be printed with a guaranteed reprint price for a one year period. The sale price of the 1966 publication is to remain at $2.50 per copy.

RESOLVED that 1,500 copies of the *1966-67 Directory of Membership* be printed and that second copies to members and copies to non-members be made available at $2.50 per copy.

RESOLVED that on recommendation of the Publications Committee the American School and University proposal as submitted at Palo Alto by letter from James R. Stack, Publisher be accepted; the Executive Secretary is authorized to advise ASU to proceed with the series of abstracted articles from the manuscript prepared by the Maintenance and Operations writing subcommittee subject to review of copy by the chairman of the Publications Committee prior to publication by American School and University.

The Executive Secretary reported total membership of the Council as of January 10, 1967 at 855; 614 individual 241 firm memberships being recorded.

RESOLVED that all applications for membership require a full year's membership fee at time of consummation. Memberships consummated during the months of May, June, July, August, September and October require full fee of $20.00 for individuals and $100.00 for firms—no discount allowed in the succeeding year's dues. Memberships consummated during the months of November, December and January carry a 25% credit for the succeeding year's dues; $5.00 credit for individuals and $25.00 credit for firms. Memberships consummated during the months of February, March and April carry a 50% credit for the succeeding year's dues; $10.00 credit for individuals and $50.00 credit for firms. *(Credit provisions to apply to new memberships only.)*

Second year billings during succeeding months of May and June with credit allowance would be as follows:

New memberships consummated from	Individuals	Firms
May 1—Oct. 31	$20.00	$100.00
Nov. 1—Jan. 31	15.00	75.00
Feb. 1—Apr. 30	10.00	50.00

RESOLVED that a Committee on Awards and Recognition be appointed by the President.

President Cameron appointed Wells to chair the Committee on Awards and Recognition. Leu and Widdall were appointed members of the committee.

RESOLVED that John L'Hote meet with ASHRAE to pursue the recommendation incorporated in his 1965 liaison ASHRAE Report.

RESOLVED that the Executive Secretary extend best wishes and congratulations to Dr. Cleve Westby on his approaching retirement and express the sincere appreciation of the Council to Dr. Westby for his many contributions and loyal support over the years.

RESOLVED that the Council delay any action relative to membership in the Associated Exhibitors pending completion of AASA booth evaluation.

President Cameron appointed Beck and Guild to co-chair Bylaws Study Committee. Theodores and Widdall were appointed committee members.

RESOLVED that the Professional Activities Committee Breakfast in Atlantic City be approved on the basis of the 1966 activity with an evaluation of the activity to be submitted by Chairman Dixon at the 1967 Annual Meeting.

RESOLVED that the Headquarters Site Selection Committee consider conducting a Community Junior College Planning Conference, find a director and investigate the possibility of publishing a follow-up monograph.

President Cameron announced that he and Tonigan would serve on an Internal Management Committee to work with the Executive Secretary.

RESOLVED that the President appoint a Procedures Committee to study the name change of the Council.

President Cameron appointed Conrad and Widdall to the committee; Conrad to serve as Chairman.

RESOLVED that the Internal Management Committee investigate the matter of employee benefits.

RESOLVED that the recommendations of the Annual Meeting Site Selection Committee relative to regional reorganization be accepted.

RESOLVED that the meeting adjourn.

TOTAL MEMBERSHIP
NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION

MARCH 31, 1966	
Individual	669
Life	37
Consulting Firm	290
TOTAL MEMBERSHIP	996

INDIVIDUAL MEMBERS

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28 E. Bayberry Dr.
Glenmont, N.Y. 12077

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Alexandria, Va. 22313

J. K. Aldrich
Director of Fac. and Development
Seattle Community College
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L. T. Alexander
Supr. of Construction
Nashville Cnty. Sch. System
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Clarence Amundrud, Supervisor
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J. A. Anderson, Chief Consul.
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John W. Anderson
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Robert E. Arnold, Asst. Supt.
and Dean of Campus Facilities
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Donald B. Attwell
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Morris R. Baker, Const. Eng.
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and Community Colleges
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Carl Barley, Spec. Sch. Surveys
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J. Milton Beck, Consultant
Jr. College Plan.–Bur. of Jr. College
Adm. and Fin.–Div. of Higher Ed.
State Dept. of Ed.–217 W. First St.
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Byron H. Becker
Construction Supervisor
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Herman F. Beckley, Director
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Muncie Community Schools
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Joseph M. Beckman, Asst. Supt.
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Clifford J. Bedore, Jr.
Business Manager
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Warren E. Beers
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